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# THE EARLY ENLIGHTENMENT IN THE DUTCH REPUBLIC, 1650–1750

*Selected Papers of a Conference held at  
the Herzog August Bibliothek, Wolfenbüttel  
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EDITED BY

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The idea to hold an *Arbeitsgespräch* on the early Dutch Enlightenment at the Herzog August Bibliothek was first suggested to me in the spring of 1999 by Friedrich Niewöhner, when we met at another HAB-conference, on Moses, hosted by himself and by Barbara Bauer. In the wake of the publication of Jan Assmann's magisterial *Moses the Egyptian. The Memory of Egypt and Western Monotheism* (1997), several scholars had been invited to report on a wide variety of European images concerning Moses as an Egyptian, a prophet, a lawgiver, a politician, etc. It was one of the most inspiring colloquiums I have ever attended, and I needed little pressure to accept Friedrich's invitation to stage a similar gathering, this time on the early Enlightenment in the Dutch Republic. This conference took place on 22 and 23 March 2001, and both the hospitality and the professional efficiency offered by Friedrich Niewöhner and his staff at the Herzog August Bibliothek were exemplary.

Among the participants, Henri Krop, Han van Ruler, Paul Schuurman, Michiel Wielema, and I are all in some way or another connected to a common research-programme, entitled *The Early Enlightenment in the Dutch Republic: Cartesianism, Spinozism, and Empiricism, 1650–1750*. This programme is located at the Department of Philosophy of the Erasmus University Rotterdam, and is being generously funded by the Netherlands' Organisation for Scientific Research (NWO). I am very grateful to our colleagues Andrew Fix (Lafayette College), Jonathan Israel (Princeton Institute of Advanced Study), Eric Jorink (Constantijn Huygens Institute, The Hague), Wijnand Mijnhardt (Utrecht University), Geert Vanpaemel (Catholic University of Louvain), Hans de Waardt (University of Amsterdam), and Ernestine van der Wall (Leiden University) for their willingness to discuss the early Dutch Enlightenment, and to share with us their own insights into the period.

Unfortunately, Michiel Wielema and Eric Jorink could not make it to Wolfenbüttel, but we gladly include their papers in the present volume, which would never have seen the light of day had it not been for the invaluable assistance of Willeke van Buren, Tammy Nyden-Bullock, Oriel Petry, and Michiel Wielema, the typographical expertise of Ivo Gerads and Johannes Rustenburg (*Typographica Academica Traiectina*), and a substantial donation kindly awarded by the Dr C. Louise Thijssen-Schoute Stichting. Finally, a special word of thanks

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Wiep van Bunge, May 2003

INTRODUCTION:  
THE EARLY ENLIGHTENMENT IN THE  
DUTCH REPUBLIC, 1650–1750

WIEP VAN BUNGE

There was a special reason for organizing this conference: in January 2000, at the Department of Philosophy of the Erasmus University Rotterdam, a research-programme began, entitled *The Early Enlightenment in the Dutch Republic: Cartesianism, Spinozism, and Empiricism, 1650–1750*.<sup>1</sup> With financial support from the Netherlands' Organisation for Scientific Research (NWO), it attempts to define the philosophical profile of this particular period in Dutch history. On the one hand it aims to chart the continuity of its main schools of thought, and on the other it puts a special emphasis on the Dutch context of Spinozism as a comprehensive philosophy. While we do not claim any originality as regards our periodization, we do feel that in Dutch historiography this period has been somewhat neglected, since many experts on the Golden Age of the Dutch Republic have traditionally concentrated on the first half of the seventeenth century, whereas Dutch Enlightenment scholars as a rule have tended to focus on the latter half of the eighteenth century.

We invited social, religious, and cultural historians as well as historians of philosophy and of science to discuss the relevance of identifying this particular period in the first place, and to assess its (dis)continuities. As for the first issue we must, of course, refer to Jonathan Israel's recent *Radical Enlightenment*, which covers exactly this period, emphasizing the crucial contribution of Dutch philosophical radicalism to the European Enlightenment as a whole, and which makes the additional point that there is something essentially misleading about concentrating on national or even local 'Enlightenments', since it fails to capture the momentum of the phenomenon itself.<sup>2</sup> But if it is indeed the case that the Dutch Republic played the crucial role assigned to it by Jonathan Israel in the international proliferation of the Enlightenment's attack on 'all legitimization of

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<sup>1</sup> For a description, see my 'A New Research Project: Cartesianism, Spinozism, and Empiricism, 1650–1750', in: *Intellectual News. Review of the International Society for Intellectual History* 6–7 (2000), 100–106.

<sup>2</sup> Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001), 137–141.

monarchy, aristocracy, woman's subordination to man, ecclesiastical authority, and slavery, replacing these with the principles of universality, equality, and democracy'<sup>3</sup>, it would only seem to become all the more important to study the historical conditions under which this could arise. Curiously, even Roy Porter, the author of a recent attempt to turn the Enlightenment into an essentially British affair, also contends that

Dutch thinkers resolved the problems of Enlightenment before anyone had experience of them (...) Before the emergence of towering geniuses such as Montesquieu and Voltaire, a radical intellectual movement had bubbled up beyond the French borders, especially in the seventeenth-century Dutch Republic.<sup>4</sup>

Over the last two decades in particular, the vast majority of modern *dixhuitiémistes* have chosen to confine their efforts to the study of all sorts of national varieties of the Enlightenment. It is easy to see the advantages of this approach, defended most forcefully by Franco Venturi, who was arguably the greatest Enlightenment scholar of the twentieth century.<sup>5</sup> Any attempt to write a comprehensive history of the European Enlightenment as a whole, would seem to require a synthetic grasp of such staggering amounts of primary sources and secondary literature alike that it has turned into a dim prospect. Roy Porter as early as 1990 suggested that any attempt to bring Peter Gay's *The Enlightenment* from the late 1960s up to date would require at least 'four or five volumes with a bibliography which would fill another'.<sup>6</sup>

As a result of this embarrassment of riches, several options seem to present themselves, one of which is a new emphasis on essentially *personal* preferences. Paradoxically, the abundance of scholarship now to be taken into account appears to invite the employment of the personal point of view on account of the growing need for sharply

<sup>3</sup> *Ibid.*, vi.

<sup>4</sup> Roy Porter, *The Enlightenment* (London, 1990), 52–53. Porter, however, seems to base his views primarily on Simon Schama's *The Embarrassment of Riches* (London, 1987), which does not even mention Spinoza.

<sup>5</sup> Franco Venturi, *Settecento Riformatore*, 4 vols. (Turin, 1969–1984). Part Four was translated: *The End of the Old Regime in Europe, 1776–1789*, 2 vols. (Princeton, 1991). For the history leading up to the Dutch, 'Batavian' Revolution, see II, Chapter 7. Extremely influential was the collection of essays edited by Roy Porter and Mikolas Teich, *The Enlightenment in National Context* (Cambridge, 1981). Simon Schama's contribution on the Dutch Enlightenment, however, has never been very popular among Dutch experts.

<sup>6</sup> Porter, *The Enlightenment*, ix.

defined frames of reference to organize the available material. Over the last year and a half this has been illustrated by the subsequent publication of J.G.A. Pocock's *Barbarism and Religion*, Roy Porter's *Enlightenment* and Jonathan Israel's *Radical Enlightenment*.<sup>7</sup> Shortly after our Wolfenbüttel gathering, yet another major study was published: Joost Kloek and Wijnand Mijnhardt's *1800*.<sup>8</sup> Without exception these books have rightly been welcomed as major scholarly achievements, but it is obvious that their authors differ sharply in their assessment of the Enlightenment.

This situation inevitably invites debate on the nature and character of the early Dutch Enlightenment.<sup>9</sup> For a start, it would be a bad mistake to ignore the seriously conservative elements prevalent in both the theological and political thought of the period. No serious Dutch theologian seems to have even considered *not* to decry Spinozism as an abominable heresy. Ernestine van der Wall's paper illustrates the extremes to which some professional theologians were prepared to go in order to stem the tide of 'Spinozism'. Moreover, the republican radicalism of the first stadholderless age appears to have withered altogether after 1672. A particularly curious fact facing any historian working on the intellectual history of the Republic is the eighteenth-century flowering of Orangist political thought. The late eighteenth-century attempts by the Patriots to pose as the ideological descendants of seventeenth-century republicanism fail to impress, if only since their efforts to appropriate the notion of popular sovereignty implied an obvious departure from the habitual allocation of sovereignty by the States-faction to the States themselves. In fact, the idea of popular sovereignty had conventionally belonged to the intellectual repertoire of the Orangists. To Pierre Jurieu, for example, it offered a means of justifying the Glorious Revolution of 1688, and later, Elie Luzac employed it in his youthful defence of the restoration of the stadholderate in 1747.<sup>10</sup>

<sup>7</sup> J.G.A. Pocock, *Barbarism and Religion*, 2 vols. (Cambridge, 1999); Roy Porter, *Enlightenment. Britain and the Creation of the Modern World* (London, 2000); Israel *Radical Enlightenment*.

<sup>8</sup> Joost Kloek and Wijnand Mijnhardt, *1800: Blauwdrukken voor een samenleving* (The Hague, 2001).

<sup>9</sup> For a recent survey of the literature, see Jelle Bosma, *Woorden van een gezond verstand. De invloed van de Verlichting op in het Nederlands uitgegeven preken van 1750 tot 1800* (Nieuwkoop, 1997), Chapter 2.

<sup>10</sup> I. Leonard Leeb, *The Ideological Origins of the Batavian Revolution. History and Politics of the Dutch Republic, 1747–1800* (The Hague, 1971), Chapter 1; W.R.E. Velema, 'God, de deugd en de oude consitutie: politieke talen in de eerste helft van de achttiende eeuw', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlan-*

One of the ways to place the early Dutch Enlightenment in an international context is, of course, to differentiate between substantially divergent schools of thought within the European Enlightenment as a whole. As a matter of fact, this was precisely how the first major assault on Peter Gay's insistence on the ideological unity of the Enlightenment was launched, in Henry F. May's *The Enlightenment in America* (1976). But May's willingness to differentiate between such phenomena as a 'Moderate', 'Skeptical', 'Revolutionary', and 'Didactic' Enlightenment, reveals a conceptual charity which seriously threatens to undermine the very coherence of the Enlightenment altogether. Any comparison between Pocock, Porter and Israel will only confirm the danger of this laxity.

On the other hand, fragmentation was part and parcel of the Dutch context as such. On a political level, the administrative structure of representation of local government at the provincial level, and of provincial government at the level of the States-General continued to obstruct the emergence of coherent policy-making, while the religious landscape of the Republic remained as diverse as it had been since the sixteenth century. Indeed, a crucial example of the risks of underestimating the differences between the several competing schools of thought which together are held responsible for the Enlightenment is supplied by the late seventeenth-century debate on toleration, such as it was held in the Netherlands.<sup>11</sup> It just so happened that within a few years time three absolutely crucial pleas in favour of toleration were written and published in the province of Holland. First, in 1670 Spinoza issued his *Tractatus theologico-politicus*, to which in 1687 Pierre Bayle added his *Commentaire philosophique* and John Locke, in 1689, the *Epistola de Tolerantia*. It seems safe to

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den 102 (1987), 476–492; E.H. Kossmann, 'The Dutch Republic in the Eighteenth Century' and Jan A.F. de Jongste, 'The Restoration of the Orangist Regime in 1747: The Modernity of a "Glorious Revolution"', both in: M.C. Jacob and W.W. Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century. Decline, Enlightenment and Revolution* (Ithaca-London, 1992), 19–31 and 32–59.

<sup>11</sup> See, most recently, Joris van Eijnatten, *Mutua Christianorum Tolerantia. Irenicism and Toleration in the Netherlands: The Stinstra Affair 1740–1745* (Florence, 1998), Chapter 1; Jonathan I. Israel, 'The Intellectual Debate about Toleration in the Netherlands', in: C. Berkvens-Stevelinck *et al.* (eds.) *The Emergence of Toleration in the Dutch Republic* (Leiden, 1997), 3–36; *idem*, 'Spinoza, Locke and the Enlightenment Battle for Toleration', in: O.P. Grell and Roy Porter (eds.) *Toleration in Enlightenment Europe* (Cambridge, 1999), 102–113 and Locke, *Spinoza and the Philosophical Debate about Toleration in the Early Enlightenment (c. 1670–c. 1750)* (Amsterdam, 1999). See also Ernestine van der Wall, *Socrates in de hemel? Een achttiende-eeuwse polemiek over deugd, verdraagzaamheid en de vaderlandse kerk* (Hilversum, 2000).

contend that few eighteenth-century arguments in favour of toleration were not in some way or another dependent on at least one of these three books.

In particular, the publication of Bayle's and Locke's writings on toleration against the background of the Revocation of the Edict of Nantes and the Glorious Revolution to many historians marks the beginning of the *European* early Enlightenment: both Pocock and Porter echo Paul Hazard's famous views on the *Crise de la conscience européenne* in that they regard the 1680s as a decisive decade in the breakthrough of enlightened thought. In Pocock's assessment of the several 'Enlightenments', which together shaped Edward Gibbon, the subject of his *Barbarism and Religion*, the Erasmian-Arminian tradition that dominated the theological thought of Locke, as well as Bayle's scepticism and Le Clerc's shift 'from Theology to History' provided the point of departure for the early Enlightenment.<sup>12</sup> Roy Porter's views on the first phase of Britain's role in the 'Making of Modernity' closely resemble Pocock's in that he too regards Locke's mild scepticism as regards both dogmatic theology and such scholastic-Cartesian issues as the nature of substance and innate ideas, as the true beginning of the eighteenth century.<sup>13</sup>

The debate on toleration shows clearly, however, that there were crucial differences between Locke, Bayle and Spinoza. From a philosophical point of view it seems odd, to say the least, to turn Locke into the man who by the late 1680s presented the cutting edge of European thought. After all, he composed a fairly moderate essay notoriously excluding both atheists and Catholics from toleration. I do not necessarily agree with Jonathan Israel that Spinoza was in fact the most radical supporter of toleration. Especially if Bayle was indeed the last of the *libertins érudits* instead of a fideist, his scepticism looks extremely modern to me.<sup>14</sup> However, it should be noted that the very foundations on which these three defenders of toleration construed their arguments differed sharply. Although Spinoza, in the *Tractatus*, by identifying a so-called *credo minimum* seems to come close to the essentially sceptical tradition as regards dogmatic theology endorsed by both Bayle and Locke, the last chapters of his book

<sup>12</sup> Pocock, *Barbarism and Religion*, vol. I: *The Enlightenments of Edward Gibbon, 1737–1764*, 50ff.

<sup>13</sup> Porter, *Enlightenment*, esp. Chapters 1, 3, and 5.

<sup>14</sup> David Wootton, 'Pierre Bayle, libertine?', in: M.A. Stewart (ed.) *Studies in Seventeenth-Century European Philosophy* (Oxford, 1996), 197–226. See also Gianluca Mori, *Bayle philosophe* (Paris, 1999).



contain a *positive* argument in favour of toleration, based on the nature of man and that of his association with his fellow-man. Needless to say, Spinoza had little sympathy for the sceptical tradition. To his mind the Pyrrhonist challenge was no real philosophical issue.<sup>15</sup>

The consequences to be drawn from the real differences between Spinoza's views on toleration on the one hand and Locke's and Bayle's on the other, hinge on the solution of a very difficult issue much debated in recent Spinoza scholarship. For if it is indeed the case, as Alexandre Matheron has argued most convincingly, that Spinoza's political philosophy is an integral part of an essentially coherent metaphysics which stretches 'from substance to individuality' and subsequently 'from individuality to community', any account of the divergences between the *Tractatus* and, for instance, the *Epistola de Tolerantia*, should recognize the metaphysical rift dividing these two works.<sup>16</sup> To put it differently, no analysis in terms of competing 'Arminian' and 'republican' schools of political thought will do. Any serious analysis of the intellectual alternatives on offer during the early Enlightenment in the Republic and beyond, will have to be prepared to deal with much more fundamental issues dividing the philosophers involved both at an epistemological and a metaphysical level.

What is more, the present situation, in which the *meaning* of Enlightenment evokes such sharply differing genealogies, also seems to call for a new involvement of historians of philosophy, whose contribution to Enlightenment research for some time now has been eclipsed by all forms of cultural, social and anthropological contributions to our understanding of the eighteenth century. To some extent, the shift of emphasis within eighteenth-century research from Enlightened thought towards eighteenth-century 'practice' certainly made sense. How many books on Voltaire's deism and Hume's analysis of causality do we actually *need*? This shift should probably even be credited for the present flowering of Dutch eighteenth-century research. But it should, I feel, not cloud our awareness that, in the final analysis, the Enlightenment as such was about *ideas*, as Pocock, Porter and Israel have reiterated abundantly. I am all in favour of some modesty on the part of philosophers and historians of philos-

<sup>15</sup> See in particular his *Tractatus de Intellectus Emendatione*.

<sup>16</sup> Alexandre Matheron, *Individu et communauté chez Spinoza* (Paris, 1969). Cf. Douglas J. den Uyl, *Power, State and Freedom. An Interpretation of Spinoza's Political Philosophy* (Assen, 1983). See, however, also Antonio Negri, *L'Anomalie sauvage. Puissance et pouvoir chez Spinoza* (Paris, 1982).

ophy in assessing the Enlightenment, for in my view, historians of philosophy still have much to learn from 'real' historians, and the former can only expect to be taken seriously by the latter once they make an effort to take on board the results of genuine scholarship. But this might not be a bad moment for bringing back at least some philosophy to the study of the Enlightenment. Over the past two decades, in the wake of the shift to a national approach to Enlightenment research, Dutch specialists also have, with a few exceptions, concentrated almost exclusively on the cultural and social aspects of the Dutch Enlightenment.

Maybe one of the obstacles for clearly identifying the early Dutch Enlightenment as a separate and important factor in the promotion of *ideas*, should be attributed to the clumsy fact that it appears to lack a 'goal'. Unlike the French Enlightenment, which could be regarded as intimately linked to the French Revolution, and could therefore serve as the focal point from which to interpret the intellectual decades which supposedly caused the ensuing events, the early Dutch Enlightenment just seems to have petered out.<sup>17</sup> Indeed, from a political perspective, the 'long' Dutch Enlightenment is an oddity, in that it took off during the first stadholderless age, that is after the demise of the over-ambitious William II in 1650, at a time when the Republic was more 'republican' than it had ever been. It found its resolution, however, during the *collapse* of the Republic, at the end of the eighteenth century. What is more, especially during the restoration of the stadholderate in 1747, the democratic demands of the so-called *Doelisten*-movement were very much part of an *Orangist* revolution. The backlash of the revolutionary 1780s, when the Republic was on the brink of following the French example, had a great effect on Enlightenment thinking. The final political outcome of these revolutionary decades was the inauguration of William I as first King of the Netherlands.

Financially and politically the Dutch Republic stumbled into its graceless decline during the second half of the eighteenth century, or so the story goes, when it clung to the example set by its early seventeenth-century past.<sup>18</sup> Thus it invented its own distant Golden

<sup>17</sup> Roger Chartier, *The Cultural Origins of the French Revolution* (Durham-London, 1991), Chapter 1. The classical example is, of course, Daniel Mornet, *Les Origines intellectuelles de la Révolution française 1715–1787* (Paris, 1933).

<sup>18</sup> The standard analysis of the economic history of the Republic is now: Jan de Vries and Ad van der Woude, *The First Modern Economy. Success, Failure, and Perseverance of the Dutch Economy, 1500–1815* (Cambridge, 1997).

Age, and chose to ignore its more immediate past, which from a philosophical perspective was arguably far more interesting than anything produced during the first half of the seventeenth century. The Dutch Republic only began to produce a distinctive contribution to the European history of ideas during the second half of the seventeenth century. It is easy to see why this should be so. For as Paul Dibon showed many years ago, in the Dutch Republic the practice of philosophy only came into its own after the outcome of the Revolt was no longer in doubt and once this new nation was supplied with an indigeneous academic infrastructure. At its young universities, Philosophy had hardly been taken seriously until, during the 1620s, the Leiden Peripatetic Franco Burgersdijk started to issue a comprehensive series of Aristotelian manuals.<sup>19</sup> By that time, however, Aristotelian natural philosophy in particular had already come in for a succession of onslaughts, launched by Ramists, Baconians and Neo-Stoics. As a consequence, by the first half of the seventeenth century Aristotelian natural philosophy had already started to disintegrate. To be sure, René Descartes, the man generally supposed to have destroyed the Peripatetic inheritance altogether, in many ways appears to have been the *last* major critic of Aristotelianism. Since Descartes spent most of his adult life in the Republic, it was only to be expected that he acquired his initial following among the Dutch.

Despite the major misunderstandings that were to mar Descartes' relationship with several of his first Dutch followers such as Regius, from the 1640s onwards the rise of Cartesianism, at the universities in particular, marked a decisive break in Dutch intellectual history. It has often been noted that the sudden demise of the *philosophia recepta* went hand in hand with a sharp decline in humanist scholarship, well before the outbreak of *la querelle des anciens et des modernes*. Around 1650 all the major representatives of the final flowering of Dutch humanism such as Grotius, Barlaeus, Vossius and Heinsius, just passed away. Although their successors, including Graevius, Perizonius, Gronovius and, of course, Isaac Vossius and Nicolaas Heinsius, were very competent scholars in their own right and, as Hans de Waardt's paper clearly demonstrates, their influence on academic politics remained strong, they never enjoyed the prestige

<sup>19</sup> Paul Dibon, *L'Enseignement philosophique dans les universités néerlandaises à l'époque pré-cartésienne 1575–1650* (Leiden, 1954); Wiep van Bunge, *From Stevin to Spinoza. An Essay on Philosophy in the Seventeenth-Century Dutch Republic* (Leiden, 2001), Chapter 1.

held by their predecessors.<sup>20</sup> In fact, Isaac Vossius and Nicolaas Heinsius turned into rather eccentric men of letters.<sup>21</sup>

The most decisive factor in identifying the early Dutch Enlightenment as a major event in intellectual history appears to be the that from a European perspective, both the reception of Cartesianism and Newtonianism in the Republic were exceptionally early, turning especially the university of Leiden into one of the most advanced academies of its day. The academic breakthrough of Cartesianism provides a widely recognized example of contemporary tolerance. Curiously, Descartes himself, in spite of occasional praise of this phenomenon, does not seem to have understood how it actually worked.<sup>22</sup> The customary unwillingness of Dutch regents to enforce the measures they solemnly issued would continue to add favourably to the inability of the States General to impose successfully anything resembling genuine censorship. Together with the commercial opportunities involved, this created a literary industry which provided the European Republic of Letters with uniquely successful publishing houses. After the Revocation of the Edict of Nantes (1685), a French-speaking literary culture of Protestant ministers and journalists, including Pierre Bayle, Pierre Jurieu, Jean le Clerc and Jacques and Henri Basnage de Beauval developed. The importance of this was soon to be recognized by the High Enlightenment *philosophes* in their home-country. What is more, Voltaire, La Mettrie and Rousseau, to name but the most obvious examples, continued to publish in Holland throughout the eighteenth century.<sup>23</sup>

<sup>20</sup> Jozef IJsewijn, 'Humanism in the Low Countries', in: Albert Rabail jr. (ed.) *Rennaissance Humanism. Foundations, Forms, and Legacy. Volume II. Humanism beyond Italy* (Philadelphia, 1988), 156–215; Mordechai Feingold, 'Reversal of Fortunes. The Displacement of Cultural Hegemony from the Netherlands to England in the Seventeenth and Early Eighteenth Centuries', in: Dale Hoak and Mordechai Feingold (eds.) *The World of William and Mary. Anglo-Dutch Perspectives on the Revolution of 1688–89* (Stanford, 1996), 234–261.

<sup>21</sup> See, for example, David S. Katz, 'Isaac Vossius and the English Biblical Critics', in: Richard H. Popkin and Arjo Vanderjagt (eds.) *Scepticism and Irreligion in the Seventeenth and Eighteenth Centuries* (Leiden, 1993), 142–184.

<sup>22</sup> Van Bunge, *From Stevin to Spinoza*, Chapter 2. See, of course, most notably: Theo Verbeek, *Descartes and the Dutch. Early Reactions to Cartesian Philosophy, 1637–1650* (Edwardsville-Carbondale, 1992) and *Descartes en zijn wereld. Essays over Descartes en zijn tijdgenoten* (Amsterdam, 1996).

<sup>23</sup> Only the most important titles can be quoted here: Walter Rex, *Essays on Pierre Bayle and Religious Controversy* (The Hague, 1965); F.J.R. Knetsch, *Pierre Jurieu. Theoloog en politikus der Refuge* (Kampen, 1967); Hans Bots (ed.) *Henri Basnage de Beauval en de Histoire des Ouvrages des Savans* (Amsterdam, 1976); J. Bots and G. Pothumus Meyjes (eds.) *La Révocation de l'Edit de Nantes et les Provinces Unies* (Amsterdam-Maarsse,

No doubt the high degree of literacy among the populace of the Republic contributed to the emergence of this literary industry. This also helps to explain the fervour with which laymen from all sorts of backgrounds took up the philosophical debates raging in the Dutch Republic. Both Cartesianism and Spinozism elicited dozens of books and pamphlets written in Dutch by people who had no academic background. Most famously, the polemic over Balthasar Bekker's *De betoverde Weereld* (1691–1693), whose sceptical attitude towards comets is analyzed by Andrew Fix, provoked over three hundred published reactions.<sup>24</sup> Once Nieuwentijt re-invented physico-theology, many dozens of amateur-philosophers and theologians followed suit, publishing their personal variations on Nieuwentijt's 'argument from design'.<sup>25</sup> Thus, philosophy in the Netherlands was not merely the concern of a handful of professional scholars. The issues which constituted the so-called *crise de la conscience européenne* were being discussed tirelessly in academic disputations, French journals and Dutch pamphlets alike. Together with the moderate stance of the leading Leiden Newtonians and the balance struck between 'faith' and 'reason' in physico-theology, the broad dissemination of early Enlightenment discourse has been put forward to explain the absence of a *radical* eighteenth-century Enlightenment in the Netherlands. And it is in fact the case that the kind of anti-religious polemic which blossomed semi-clandestinely in France, for instance, does not appear to have taken root in the Dutch Republic, not even among the most fervent Patriots of the latter half of the eighteenth century.

In several of the papers below, a special emphasis is placed on what could perhaps be called the empiricist backlash following the Dutch breakthrough of Cartesianism, including some of its more

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1986); Gerald Cerny, *Theology, Politics, and Letters at the Crossroads of European Civilization*. Jacques Basnage and the Baylean Huguenot Refugees in the Dutch Republic (Dordrecht, 1987); C. Berkvens-Stevelinck et al. (eds.) *Le Magasin de l'Univers. The Dutch Republic as the Centre of the European Book Trade* (Leiden, 1992); Hubert Bost, *Un 'intellectuel' avant la lettre: le journaliste Pierre Bayle (1647–1706). L'actualité religieuse dans les Nouvelles de la République des Lettres* (Amsterdam-Maarssen, 1994); Ingrid Weekhout, *Boekencensuur in de Noordelijke Nederlanden. De vrijheid van drukpers in de zeventiende eeuw* (The Hague, 1998); P.G. Hoftijzer and O.S. Lankhorst, *Drukkers, boekverkopers en lezers in de Republiek. Een historiografische en bibliografische handleiding* (The Hague, 2000).

<sup>24</sup> Balthasar Bekker, *Die bezauberte Welt* (1693), ed. Wiep van Bunge (Stuttgart-Bad Cannstatt, 1997); Andrew C. Fix, *Fallen Angels. Balthasar Bekker, Spirit Belief, and Confessionalisation in the Seventeenth-Century Dutch Republic* (Dordrecht, 1999).

<sup>25</sup> J. Bots, *Tussen Descartes en Darwin. Geloof en natuurwetenschappen in de achttiende eeuw in Nederland* (Assen, 1972); Rienk H. Vermij, *Secularisering en natuurwetenschap in Nederland in de zeventiende en achttiende eeuw: Bernard Nieuwentijt* (Amsterdam, 1992).

adventurous varieties, such as Spinozism. Gerhard Wiesenfeldt has recently argued that as early as the final quarter of the seventeenth century, Leiden 'Cartesians' such as Burchard de Volder were no longer real Cartesians, in that they were increasingly inspired by the example set by Robert Boyle and the other *virtuosi* associated with the Royal Society.<sup>26</sup> Very little has been written on the downfall of Dutch Cartesianism. Even less attention has been paid to the rise of what should perhaps indeed be termed 'Empiricism' in Dutch natural philosophy. As far as the early rise of Newtonianism is concerned, it must surely be deemed odd that the only available monograph on Willem Jacob's Gravesande, whose immense prestige among the *philosophes* is beyond dispute, is Giambattista Gori's *La fondazione dell'esperienza in 's Gravesande* (1972).

No doubt the fact that Descartes' own views have been shown to lend themselves both to 'rationalist' and to 'empiricist' interpretations, seriously complicates our understanding of the ways and by-ways pursued by some of the later Dutch Cartesians.<sup>27</sup> What is more, over the last few decades both historians of science and historians of philosophy have started to question the plausibility of the 'rationalist-empiricist' dichotomy in evaluating early modern intellectual history.<sup>28</sup> Paul Schuurman's contribution shows the benefits of a *logical* perspective, while Geert Vanpaemel stresses the *practical* nature of this so-called empiricism. Henri Krop, on the other hand, empha-

<sup>26</sup> G.B. Wiesenfeldt, *Leerer Raum in Minervas Haus. Experimentelle Naturlehre an der Universität Leiden, 1675–1715* (Ph. D. Hamburg, 1999). See also E.G. Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden* (The Hague, 1973), C. de Pater, 'Experimental Physics', in: Th.H. Lunsingh Scheurleer and G.H.M. Posthumus Meyjes (eds.) *Leiden University. An Exchange of Learning* (Leiden, 1975), 309–327 and *Petrus van Musschenbroek (1692–1761). Een newtoniaans natuuronderzoeker* (Leiden, 1979). For a recent perspective of a cultural historian, see Lissa Roberts, 'Going Dutch: Situating Science in the Dutch Enlightenment', in: William Clark *et al.* (eds.) *The Sciences in Enlightened Europe* (Chicago-London, 1999), 350–388.

<sup>27</sup> See, for example, Daniel Garber, 'Descartes and Experiment in the *Discourse* and *Essays*', in: Steven Voss (ed.) *Essays on the Philosophy and Science of Descartes* (Oxford, 1992), 288–310 and *Descartes' Metaphysical Physics* (Chicago, 1992).

<sup>28</sup> Caspar Hakfoort, 'Wetenschapshistorische etiketten en de gevaren van polaire analyses', in: *Tijdschrift voor de geschiedenis der geneeskunde, natuurwetenschappen, wis-kunde en techniek* 5 (1982), 1–5 and *Optics in the Age of Euler. Conceptions of the Nature of Light, 1700–1795* (Cambridge, 1995), 176–192; Rienk Vermij, 'Op zoek naar natuurwetenschap. Een kritiek op het idee van experimentele en wiskundige tradities in de vroeg-moderne tijd', in: *Gewina* 19 (1996), 3–17; Wiep van Bunge, 'Vroegmoderne wijsbegeerte in Nederland: een historiografisch en filosofisch project', in: Leonard de Jong and Frans Geraedts (eds.) *Ergo Cogito IV. Het Ideeënmuseum* (Groningen, 1996), 37–54.

sizes the *continuity* between Leiden Cartesianism and Newtonianism. To all intents and purposes, the transition from a basically Aristotelian to an essentially Cartesian outlook which took place in Dutch philosophy around the middle of the seventeenth century must be deemed much more fundamental than the subsequent shift from a Cartesian to a Newtonian paradigm in natural philosophy.<sup>29</sup> Even less work has been done to evaluate the empiricist elements evident in the writings of Spinoza and some of his early admirers. The Franeker Cartesian Ruardus Andala, who is dealt with in some detail in Han van Ruler's paper, was actually of the opinion that the early eighteenth-century rise of empiricism and the threat of Spinozism were not unconnected.<sup>30</sup> As far as I can see, Pierre-François Moreau's *Spinoza. L'expérience et l'éternité* still stands alone as a major interpretative achievement uncovering a completely ignored aspect of Spinoza's thought. Spinoza's assessment of experiential knowledge may not have been the same as Bacon's or Boyle's, but throughout his writings he repeatedly refers to the constitutive role of experience as such.<sup>31</sup> Eric Jorink's analysis of the possible connections between Swammerdam and Spinoza opens up what has so far been a largely ignored aspect of the Dutch philosopher's relationship to his day and age.

The essentially providential worldview propagated by the early Dutch Newtonians who were associated with the very moderate *Journal Littéraire*, clearly served as an antidote to some of the more radical varieties of Dutch Cartesianism.<sup>32</sup> Paradoxically, this might well be taken to imply that the Dutch Early Radical Enlightenment, studied by academics such as Margaret Jacob, Silvia Berti, Wim Klever, Michiel Wielema, Jonathan Israel and myself, from the very out-

<sup>29</sup> Cf. Geert Vanpaemel, *Echo's van een wetenschappelijke revolutie. De mechanistische natuurwetenschap aan de Leuvense artes-faculteit* (Brussels, 1986) and 'Cartesiaanse en newtoniaanse natuurwetenschap aan de Leuvense artesfakulteit', in: *Tijdschrift voor de geschiedenis van de natuurwetenschappen, wiskunde en techniek* 5 (1982), 39–49.

<sup>30</sup> Israel, *Radical Enlightenment*, 481–482. According to Andala, Le Clerc in particular had destroyed the possibility to prove 'the existence of God and the creation of the mind, as well as the conservation of all things and the union of body and mind.' See also Han van Ruler's paper in the present volume.

<sup>31</sup> Pierre-François Moreau, *Spinoza. L'expérience et l'éternité* (Paris, 1993). In some respects this study was prepared by C. de Deugd, *The Significance of Spinoza's First Kind of Knowledge* (Assen, 1966).

<sup>32</sup> Margaret C. Jacob, *The Radical Enlightenment. Pantheists, Freemasons and Republicans* (London, 1981), 87–108. See also the special issue of *De Achttiende Eeuw* 18–2 (1986) and, most recently, Léonie Maass, *Het Journal Littéraire de La Haye (1713–1723). De uitwendige geschiedenis van een geleerdentijdschrift* (Nijmegen, 2001).

set fostered the all too familiar moderate, essentially Protestant Enlightenment that has been commented upon by the experts Hans Bots, Jan de Vet, Wijnand Mijnhardt, Ernestine van der Wall, and Piet Buijnsters. Michiel Wielema's paper amply demonstrates *how* radical the Dutch Radical Enlightenment actually was. Interestingly, just a few years ago, Wyger Velema presented us with an impressive study of Elie Luzac. He demonstrated how this former publisher of La Mettrie's *L'Homme machine* from the late 1740s onwards struggled to stem the tide of radicalism exported from France, trying to uphold the 'reasonable' standards that had once ruled the Republic of Letters.<sup>33</sup> Luzac, who had been a warm supporter of Newtonianism since his student days in Leiden, was not so much concerned with the actual threat of sensationalist French philosophy as with its rejection of metaphysics and 'systematic' philosophy.

From a philosophical point of view, the failure of Dutch philosophers to continue the success of their embrace of Newtonian natural philosophy should perhaps primarily be understood as indicative of a more general crisis facing eighteenth-century philosophy once it had lost the one subject which traditionally had been regarded as constituting its very basis. Both within an Aristotelian and a Cartesian context the philosophy of nature had been conceived as the chief part of philosophy. It was only at this stage, when Newtonianism had definitively triumphed that the debate on natural law began to dominate Dutch Enlightenment discourse, serving as the context in which *man* became the principal object of enquiry.<sup>34</sup> The matter of the particular relevance of natural law theories during the early Enlightenment deserves special attention in view of the magnificent work recently produced on Thomasius and the early modern German tradition.<sup>35</sup> But for a few exceptions, the Dutch High Enlightenment does not appear to have spawned philosophers of international standing. Interestingly, these few exceptions were all staunch Oran-

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<sup>33</sup> Wyger R.E. Velema, *Enlightenment and Conservatism in the Dutch Republic. The Political Thought of Elie Luzac (1721–1796)* (Assen, 1993), Chapter 3.

<sup>34</sup> In France, natural and moral philosophy parted ways at the universities around 1750, as was shown by L.W.B. Brockliss, *French Higher Education in the Seventeenth and Eighteenth Centuries* (Oxford, 1987), 193. By far the most influential recent account of the natural law tradition leading up to the Enlightenment is Knud Haakonssen, *Natural Law and Moral Philosophy. From Grotius to the Scottish Enlightenment* (Cambridge, 1996).

<sup>35</sup> T.J. Hochstrasser, *Natural Law Theories in the Early Enlightenment* (Cambridge, 2000) and Ian Hunter, *Rival Enlightenments. Civil and Metaphysical Philosophy in Early Modern Germany* (Cambridge, 2001).



gists, such as Frans Hemsterhuis, a largely isolated civil servant only known to a small coterie in The Hague and to a number of German correspondents, as well as Rijklof Michael van Goens, who after a brilliant academic start, which brought him into contact with many of the most gifted *philosophes*, left Utrecht University in order to become a magistrate. Elie Luzac and Isaac de Pinto were no Patriots either.<sup>36</sup>

Once natural philosophy began to develop into an essentially autonomous *science*, the basic truths of which were no longer in doubt, the next crucial step forward was, of course, only taken by Kant. His 'critical' or 'transcendental' method, while taking the truth of Newtonianism for granted, invented a completely new competence for philosophy as a professional discipline. Seen in this light, the general lack of philosophical vigour during the second half of the eighteenth century seems far less startling than the fact that during the first half of the *nineteenth* century Dutch philosophy largely managed to ignore the momentous developments that were taking place in German Idealism. Accordingly, in this strictly philosophical perspective, the real break in the Dutch tradition seems to occur around 1800, when the time-honoured tradition of Dutch receptiveness to intellectual innovation abroad appears to have come to a grinding halt.<sup>37</sup>

This conclusion appears to fit in well with Peter van Rooden's Foucauldian insights on the *religious* history of the Netherlands.<sup>38</sup> For Van Rooden has suggested that this history is to be understood in terms of a number of decisive breaks. In his eyes these should be situated in the final quarters of the seventeenth and eighteenth centuries, at which junctions the historical 'localization' of religion in Dutch society took on completely new dimensions. By the late eighteenth century, however, the greatest philosopher the Netherlands ever produced had again become a major source of inspiration to a genera-

<sup>36</sup> L. Brummel, *Frans Hemsterhuis. Een Filosofenleven* (Haarlem, 1925); M.F. Fresco *et al.* (eds.) *Frans Hemsterhuis (1721–1790). Quellen, Philosophie, Rezeption* (Münster, 1995); Frans Hemsterhuis, *Wijsgerige werken*, ed. M.J. Petry (Budel-Leeuwarden, 2001); J. Wille, *De literator Rijklof Michael van Goens en zijn kring*, 2 vols. (Zutphen-Amsterdam, 1937–1993); Velema, *Enlightenment and Conservatism*; Ida J.A. Nijenhuis, *Een joodse filosofie. Isaac de Pinto (1717–1787) en de ontwikkeling van de politieke economie in de Europese Verlichting* (Groningen, 1992).

<sup>37</sup> Wijnand W. Mijnhardt, 'The Dutch Enlightenment: Humanism, Nationalism, and Decline', in: Jacob and Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century*, 197–223.

<sup>38</sup> Peter van Rooden, *Religieuze regimes. Over godsdienst en maatschappij in Nederland, 1570–1990* (Amsterdam, 1996).

tion of thinkers that would decisively change the course of European philosophy. For in the wake of the so-called *Pantheismusstreit*, one of the issues dealt with in Jonathan Israel's paper, Spinoza was once again being heralded as a uniquely modern thinker.<sup>39</sup> It goes without saying that the Spinoza rediscovered by Lessing, Mendelssohn and Goethe hardly resembled the author whose writings one hundred years earlier had inspired the Radical Enlightenment. Whereas the latter was perceived to be atheist, materialist, and fiercely republican, the former was held to be a deeply religious thinker, whose views were seen to provide an *alternative* to the materialism displayed in d'Holbach's *Système de la nature* (1770). Once more, the question presents itself how a radical, broadly materialist and atheist Enlightenment, should be related to its dialectical off-spring, which took the form of Romanticism or Idealism, most spectacularly in Germany, of course. And once more, the fact that this Idealist Spinoza, very popular also among English Romantics, failed to make any impact on Dutch culture, only seems to endorse the conclusion that the early Enlightenment in the Netherlands *was* an exceptional era in Dutch cultural history.

Then again, to end on a personal note, I have become slightly wary of stressing the uniqueness of both Spinoza and the early Dutch Enlightenment as a whole. Perhaps Pocock's analysis of Franco Venturi's views on the supposed absence of any genuine Enlightenment in Britain before the 1760s should be seen as a warning:

As historians know—but do not always remember—the problem with any exceptionalist thesis is less the exception which it claims (since every culture or moment is unique if closely examined) than the rule which it establishes: the set of general characteristics, belonging to some class of phenomena, from which some *Sonderweg* is said to depart.<sup>40</sup>

Of course, there is nothing wrong with calling any event or any period unique, extraordinary, or exceptional, but doing so is simply not very helpful. It fails to explain, and at best begs the question as to its nature.

In conclusion, the final two papers of this volume represent two completely different approaches to the early Enlightenment in the Dutch Republic by probably the two most influential experts on the age. While Jonathan Israel with his unequalled insight into

<sup>39</sup> See most recently Detlev Pätzold, *Spinoza, Aufklärung, Idealismus. Die Substanz der Moderne* (Frankfurt a.M., 1995).

<sup>40</sup> Pocock, *Barbarism and Religion*, I, 292.

the most disparate literary sources and archival documents demonstrates how the radicalism of the period reverberated throughout Europe well into the eighteenth century, Wijnand Mijnhardt focuses on the history of the Dutch Enlightenment as a historiographical category. Mijnhardt's analysis of the curious way in which the radical Enlightenment was left out of the national canon, and his evaluation of the specifically Dutch aftermath of the period in question bring this volume to a fitting conclusion.

PART 1

*Professors and Pastors*



## ACADEMIC CAREERS AND SCHOLARLY NETWORKS

HANS DE WAARDT

Increase in academic activity was one of the most impressive effects of the economic boom that transformed Dutch society so fundamentally from the last quarter of the sixteenth century onwards.<sup>1</sup> Between 1575 and 1700 no less than five universities, or even six if we include the short-lived experiment in Nijmegen, and twelve so-called *Athenaea Illustria* were founded.<sup>2</sup> An *Athenaeum Illustre* offered higher education that came close to university training, or at least that given at a Faculty of Arts, but with one major difference: it could not bestow academic degrees. Many foreign scholars were drawn to the Republic, where most tried to find some sort of local support. A broad basis for the reception of new ideas was thus created. This paper will focus on the way in which this labour market operated in the Dutch Republic during the seventeenth century. After briefly sketching the careers of two migrant scholars I shall concentrate on the relationship between two outstanding men of learning, Johannes Georgius Graevius (Naumburg, Saxony, 1632 – Utrecht, 1703) and Nicolaas Heinsius (Leiden, 1620 – The Hague, 1681), with particular emphasis on the position of the latter, as he played a very specific role in this market.

### I. *Johannes Fredericus Gronovius*

In 1633 Johannes Fredericus Gronovius (Hamburg, 1611 – Leiden, 1671) met Hugo Grotius (Delft, 1583 – Rostock, 1645), who was visiting Hamburg on his way to Sweden. The Dutch legal scholar advised Gronovius to finish his studies in Holland. After preparing

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<sup>1</sup> See on the foundation of universities and *athenaea illustria* in the Dutch Republic: Willem Frijhoff, *La Société néerlandaise et ses gradués, 1575–1814* (Amsterdam, 1981), 14–18; Marc Wingens, 'Small Universities in the Republic of the United Provinces (1575–1815)', in: Gian Paolo Brizzi and Jacques Verger (eds.) *Le Università minori in Europa (secoli XV–XIX)* (Rubbetino, 1998), 199–205.

<sup>2</sup> In 1648 the *Athenaeum* of Harderwijk, founded in 1599, was transformed into a university, which meant that a university privilege was bestowed on it by the States of Gelderland. Utrecht was also founded as an *Athenaeum* in 1634, but it received the status of a full university as early as 1636. In 1656 the town of Nijmegen changed its *Athenaeum* into a university, but few recognized this change.

the ground by sending introductory letters to the leading philologists Gerard Vossius (Heidelberg, 1577 – Amsterdam, 1649) and Claudius Salmasius (Sémur en Auxois, 1588 – Spa, 1653), Gronovius travelled to Holland, carrying Grotius' introductory letter with him.<sup>3</sup> Gronovius soon came into contact with several other scholars, among whom was the renowned French theologian André Rivet (St. Maxent, 1572 – Breda, 1651). Around 1636 Gronovius also began to correspond with Nicolaas Heinsius, who was then only sixteen years old.<sup>4</sup> The two young men became very close friends. Gronovius' job as a *preceptor* to children of a wealthy Amsterdam family enabled Gronovius in 1639 to go on a *grand tour*.<sup>5</sup> On his return in 1642 he was appointed professor of history and eloquence at the Athenaeum of Deventer. However, he did not see this appointment as the final step in his career. When the chair of eloquence at Leiden University became vacant in 1648, Heinsius immediately urged his friend to apply for this post. Gronovius visited his friend in Leiden to develop a strategy to secure it.<sup>6</sup> Their correspondence makes it possible to reconstruct their campaign for this professorial chair.

On 12 December 1648 Gronovius wrote to Heinsius asking what he had achieved in Dordrecht.<sup>7</sup> As agreed, Gronovius had visited two of his former students in Amsterdam and Haarlem to ask them to recommend him to the husbands of their maternal aunts. Although Gronovius does not disclose the identity of these two young men in his correspondence, it can be assumed with some certainty that he had spoken to the sons of the Amsterdam merchant Michiel Pauw. The boys' mother had two sisters, one of whom was married to a curator of Leiden University, the powerful Gerard Schaep (Amsterdam,

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<sup>3</sup> Paulus Colonesius (ed.) *Gerardi Joan. Vossii et clarorum virorum ad eum epistola*, vol. 2 (London, 1690), 111, nr. 171, Bremen, 1633/06/04, Gronovius to Vossius; Petrus Burmannus (ed.) *Sylloges epistolarum a viris illustribus scriptarum*, 5 vols. (Leiden, 1727), II, 522–524, nr. 277, Bremen, 1633/12/08 (11/28), Gronovius to Salmasius. See for this introductory letter B.L. Meulenbroek (ed.) *Briefwisseling van Hugo Grotius*, vol. 5 (The Hague, 1966), 237, nr. 1919, Hamburg, 1634/03/18, Grotius to Salmasius.

<sup>4</sup> The oldest known letter is an answer by Gronovius to a letter of Heinsius: Burmannus (ed.) *Sylloges*, III, 1–3, nr. 1, The Hague, 1636/10/14, Gronovius to Heinsius.

<sup>5</sup> On this journey see Paul Dibon and Françoise Waquet, *Johannes Fredericus Gronovius, pèlerin de la République des Lettres. Recherches sur le voyage savant au XVII<sup>e</sup> siècle* (Geneva, 1984). A map showing the route of the three young men can be found in: Hans Bots and Françoise Waquet, *La République des Lettres* (S.l., 1997), 73.

<sup>6</sup> Burmannus (ed.) *Sylloges*, III, 202–203, nr. 161, Leiden, 1648/11/05.

<sup>7</sup> *Ibid.*, 205–206, nr. 163, Deventer, 1648/12/12, Gronovius to Heinsius.

1594–1666).<sup>8</sup> Her sister was married to one of the *scholarches* of the Athenaeum Illustre of Amsterdam. Schaep was of course the main target of Gronovius' action. But it is not very probable that this man acted as expected. It appears Schaep was not the type to allow other people to direct his actions. According to a colleague of his on the Amsterdam city council, Schaep 'could not get on with anybody'. He was 'well educated, but not very clever and anything but eloquent'.<sup>9</sup>

In the meantime Heinsius approached an acquaintance of his in Dordrecht, Adriaen van Blijenburgh (1616–1682),<sup>10</sup> a nephew of the curator Cornelis van Beveren (1591–1663).<sup>11</sup> Through Van Blijenburgh, with whom he corresponded on matters of philology and letters, he hoped to influence Van Beveren, the other member of the board of Leiden University. On 23 December 1648 Van Blijenburgh answered that he had indeed spoken to his uncle and had recommended Gronovius for the chair of eloquence.<sup>12</sup> To keep up this vital contact, Heinsius presented him with a copy of the poems he had written during a recent journey to Italy.<sup>13</sup> Heinsius also approached another acquaintance of his in Dordrecht, Jacobus Pijll (Dordrecht, 1621–1651), who was a member of the local governing elite, dabbled in Latin poetry, and was on good terms with Van Beveren.<sup>14</sup> On the advice of Heinsius, Gronovius sent him one 'of the fruit' of his scholarly work.<sup>15</sup>

In December 1648 Heinsius visited a number of high civil servants in The Hague who were known for their interest in matters of erudition and letters.<sup>16</sup> It is clear that he wanted them to use their influence to assist with Gronovius' career. Heinsius urged his

<sup>8</sup> Schaep became a member of the city council in 1624, served as alderman (*schepen*) in 1637, and repeatedly as burgomaster between 1637 and 1666. See also Johan E. Elias, *De vroedschap van Amsterdam, 1578–1795*, vol. 1 (Amsterdam, 1963), 355–356, nr. 114.

<sup>9</sup> Hans Bontemantel, *De regeering van Amsterdam soo in 't civiel als crimineel en militaire (1653–1672)*, 2 vols., ed. G.W. Kernkamp (The Hague, 1897), II, 488–489.

<sup>10</sup> On him see *Nieuw Nederlands Biografisch Woordenboek [NNBW]*, IV, 174.

<sup>11</sup> *NNBW*, III, 108–109.

<sup>12</sup> University Library Leiden Ms. BURM F 6a, Dordrecht, 1648/12/2, Blijenburgh to Heinsius.

<sup>13</sup> G.D.J. Schotel (ed.) *Theodori Ryckii, Joh. Georgii Grævii, Nicolai Heinsii ad Adrianum Blyenburghum, et Adriani Blyenburghi ad diversos epistolæ ineditæ* (The Hague, 1853), 15–17, nr. 2, Leiden, 1649/01/06, Heinsius to Blijenburgh. See also University Library Leiden Ms. BURM F 6a, Dordrecht, 1649/02/18, Blijenburgh to Heinsius.

<sup>14</sup> Cf. *NNBW*, IV, 1102.

<sup>15</sup> Gronovius notified Heinsius that he had done so, Burmannus (ed.) *Sylloges*, III, 205–206, nr. 163, Deventer, 1648/12/12.

<sup>16</sup> Cf. *ibid.*, 206–207, nr. 164, Leiden, 1648/12/29, Heinsius to Gronovius.



friend to canvass the nobleman Amelis van den Bouchorst (1616 – The Hague, 1669), the third and most powerful of the university curators.<sup>17</sup> Heinsius assured his friend that Gerard Vossius would be able to help him get into contact with Van den Bouchorst. He had recently met this professor, who had expressed great sympathy for Gronovius' candidacy.

But the board of curators and burgomasters of Leiden postponed the decision of this appointment. In January 1649 Heinsius complained to Gronovius that there were now so many rumours that he was unable to assess his friend's chances.<sup>18</sup> By now several important people had assured Heinsius that they supported him. But rumour had it that Bouchorst was prompted by Salmasius to appoint the Frenchman Pierre Jarrige (Tulle, Limousin, c. 1606–1670). Heinsius therefore pressed his friend once more to present himself to Bouchorst. Heinsius also employed his brother-in-law, the lawyer and magistrate Willem Goes (Leiden, 1611 – The Hague, 1686), to influence Clemens Baersdorp, the administrator of the university in his favour. Even Nicolaas' old and ailing father Daniel Heinsius (Gent, 1581 or 1580 – Leiden, 1655) was inspired by his son to write a letter to the curator Van Beveren to recommend Gronovius for the Leiden chair.<sup>19</sup> It is clear what the two friends aimed to achieve; that members of the university board were to hear a song of praise about the paramount qualities of the Deventer professor wherever they went.

But when the university board on 15 November 1649 finally came to a decision, it was not Gronovius whom they appointed, but two minor scholars: Antonius Thysius (Harderwijk, c. 1603 – Leiden, 1665), who had been extraordinary professor in *poesis* at Leiden since 1637, and Pierre Jarrige.<sup>20</sup> As early as 1648 Thysius had suggested the university board to give him the post.<sup>21</sup> The year before his appointment only very few people would have thought he had a chance of getting this nomination, as the members of the university board clearly did not hold him in high regard.<sup>22</sup> Pierre Jar-

<sup>17</sup> Cf. *NNBW*, IV, 262–263.

<sup>18</sup> Burmannus (ed.) *Sylloges*, III, 207, nr. 165, Leiden, 1649/01/31, Heinsius to Gronovius.

<sup>19</sup> *Ibid.*, 209–211, nr. 167, Leiden, 1649/03/12, Heinsius to Gronovius.

<sup>20</sup> P.C. Molhuysen (ed.) *Bronnen tot de geschiedenis der Leidsche universiteit*, 7 vols. (The Hague, 1913–1924), III, 31.

<sup>21</sup> University Library Leiden Archive of the Curators inv. nr. 24, fo. 106v, 1648/08/17.

<sup>22</sup> He was nominated ordinary professor as late as 1653. In 1637 it was decided that he would not receive a salary. Two years later he received a meagre 100 guilders

rige was a French Jesuit who in 1648 had converted to the reformed church and had fled to the Netherlands.<sup>23</sup> The States of Holland asked Leiden University to provide him with a source of income.<sup>24</sup> Hence Jarrige was clearly appointed to the chair for political reasons, as was, as it seems, Thysius who had close contacts with the court of the stadholder.<sup>25</sup> Whatever the precise reasons, Gronovius' candidacy was overlooked on this occasion. But in 1658 a second, very similar campaign met with success. Again Heinsius directed the manoeuvres, again the curators of Leiden university must have felt besieged by supporters of Gronovius and this time they yielded and appointed Gronovius professor of Greek.<sup>26</sup> Gronovius ended his career just as he had planned, as professor at Leiden, where he died in 1671.

## II. Alexander Morus

Alexander Morus (Castres, 1616 – Paris, 1670) was the son of a professor at the Huguenot College in the small town of Castres in Languedoc.<sup>27</sup> In 1636 he went to study theology in Geneva, where he was appointed professor of Greek in 1639. In 1641 he also became a minister of the reformed church there and the following year theology was added to his assignment. In June 1647 Morus wrote to Salmasius, a compatriot and friend, that he would like a chair at a Dutch university.<sup>28</sup> His timing proved fortunate as there were

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a year. In 1642 his salary was set at 300 guilders. In 1650 it rose to 600, in 1653 he was appointed as university librarian, which brought him an extra 200 guilders a year. In 1655 he reached his maximum: 1.000 guilders per annum.

<sup>23</sup> *NNBW*, IX, 457–458.

<sup>24</sup> Cf. Molhuysen (ed.) *Bronnen Leidsche universiteit*, III, 22n.

<sup>25</sup> He sent several long laudatory odes on the prince of Orange and his family to Constantijn Huygens, the prince's personal secretary, cp. *De briefwisseling van Constantijn Huygens (1608–1687)*, 6 vols., ed. J.A. Worp (The Hague, 1911–1917), IV, 94 nr. 3822, Thysius to Huygens; University Library Leiden Ms. HUG 37, Leiden, 1645/12/09, Thysius to Huygens; see also *Briefwisseling Huygens*, vol. 4, 263 nr. 4224. Huygens sometimes showed impatience, e.g. in 1641 when he answered Thysius that the Prince had no time for him, *De briefwisseling van Constantijn Huygens*, III, 233, nr. 2862. Even after 1650, when the credit of the House of Orange had reached its nadir, Thysius informed Huygens about his plan to compose laudatory poems on the still very young William III.

<sup>26</sup> Molhuysen (ed.) *Bronnen Leidsche universiteit*, III, 137–138, 1658/04/10.

<sup>27</sup> On him see Pierre Bayle, *Dictionnaire historique et critique*, 4 vols. (Amsterdam-Leiden 1730<sup>4</sup>), III, 436–437 note K; Eug. Haag and Em. Haag (eds.) *La France protestante*, 10 vols. (Paris, 1857), VII, 543–548; *NNBW*, X, 652–653.

<sup>28</sup> University Library Leiden Ms. PAP 7, Genève, 1647/06/29, Morus to Salmasius.

concrete plans to transform the Athenaeum Illustre at Harderwijk in Gelderland into a real university. The acts of the curators from this period are lost, but the private correspondence of some of the people involved in Morus' appointment is informative.<sup>29</sup> In September or October 1647 Salmasius recommended his protégé to the curators of Harderwijk University for the new theology chair there. Isaac Vossius (Leiden, 1618 – London, 1689), the only surviving son of Gerard Vossius, was one of Salmasius' correspondents. At the beginning of November 1647 Isaac wrote to Salmasius that he had never met Morus. Neither had he ever read anything this man had published, but he did know that many people had high regard for him.<sup>30</sup> Isaac had therefore arranged for people he knew to mention Morus' name to the curators, and he also wrote that he was certain Salmasius' recommendation carried enough weight to secure the nomination.

However, Salmasius' colleague and direct neighbour in Leiden, Fredericus Spanheim or Spanhemius (Amberg, Palatinate, 1600 – Leiden, 1649), professor of theology there and a man of influence, started a counter-campaign. Morus had been his successor in Geneva. Spanhemius knew him personally and did not like him. Spanhemius was an orthodox reformed theologian, who upheld a strict interpretation of Calvin's views on predestination. He suspected Morus of endorsing the more lenient interpretation of this dogma by Moïse Amyraut, the leading theologian at the Huguenot Academy at Saumur.<sup>31</sup> Some people even accused Morus of having Socinian doubts about the divine nature of the Holy Ghost. Apart from these theological reproaches there were also doubts about his moral standards. Some claimed that Morus was a womanizer. To defend himself Morus published several collections of apologetic testimonies.<sup>32</sup>

<sup>29</sup> See also F.F. Blok, *Isaac Vossius and his Circle. His Life until his Farewell to Queen Christina of Sweden (1618–1655)* (Groningen, 2000), 231–239.

<sup>30</sup> See D.J. ter Horst (ed.) *Isaac Vossius en Salmasius. Een episode uit de 17de-eeuwse geleerdengeschiedenis* (The Hague, 1938), 44, nr. B 30.

<sup>31</sup> Cf. F. van Stam, *The Controversy over the Theology of Saumur, 1635–1650. Disrupting Debates among the Huguenots in Complicated Circumstances* (Amsterdam, 1988).

<sup>32</sup> See his *L'innocence vangee* ... ([Amsterdam], 1648), 2'-4'. Against John Milton's allegations, exposed in *Pro se defensio contra Alexandrum Morum* ... (The Hague, 1655) that Morus was the author of a pamphlet in which the leaders of the Commonwealth were portrayed as unscrupulous regicides, Morus wrote his *Fides publica, contra calumnias Ioannis Miltoni* (The Hague, 1654) and *Supplementum fidei publicae* ... (The Hague, 1655). Milton had accused Salmasius of the authorship in his *Pro populo anglicano defensio* ... (London, 1651). Morus also published the text of several academic disputations he had presided over at Geneva University, and of lectures he

But in Harderwijk these tactics were to no avail. In December 1647 Isaac Vossius reported to Salmasius that he had just received news that the movement against Morus was rapidly gaining ground.<sup>33</sup> According to Vossius not a day passed in which Spanhemius did not try 'to persuade the curators that they should not nominate this man who because of his heresy and his lack of morality would bring turmoil to all Dutch universities'. Jacobus Triglandius (Vianen, 1583 – Leiden, 1654), another very orthodox Leiden professor of theology, also brought this message to the curators, encouraged by Spanhemius. Vossius feared that it would be very difficult for Morus to be appointed. It was therefore absolutely necessary that Salmasius addressed the curators once more to give the last push.

But whereas Spanhemius and Triglandius openly showed their opposition, another more formidable enemy, who also opposed Salmasius' plans, managed to hide his true opinions for a long period. At the beginning of January 1648 Salmasius had complained to André Rivet that Spanhemius was obstructing him in his efforts to get Morus appointed. 'Poor Morus', he wrote, 'is now discussed by everyone in speech and writing. (...) Since I have recommended him for Harderwijk, Morus has been made darker than a Moor'.<sup>34</sup> In his answer Rivet claimed that he had no personal objections against Morus but that a former student of his had asked him for a recommendation for this post, a request that Rivet could of course not reject.<sup>35</sup> But he assured Salmasius that he had done so '*sans prejudice de personne*'. In reality however, Rivet was not so impartial, for he did, albeit secretly, all he could to block Morus' career.

Thus competition escalated into a conflict between two factions of Leiden professors, both of which, it appears, tried to monopolize Harderwijk as a location for placing pupils and other clients. They

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had given there, *Victoria gratiae* ... (Middelburg, 1652); *Causa Dei, seu Alexandri Mori* ... (Middelburg, 1653).

<sup>33</sup> Ter Horst, *Isaac Vossius en Salmasius*, 45–46, nr. 28, Amsterdam, 1647/12/30. The Harderwijk professor Cornelius Tollius had provided this information, cf. University Library Amsterdam Ms. E 120c, Harderwijk, [1647]/12/18, Tollius to Is. Vossius, many passages from this letter are almost literally repeated in Vossius' letter to Salmasius.

<sup>34</sup> Pierre Leroy *et al.* (eds.) *Claude Saumaise & André Rivet. Correspondance échangée entre 1632 et 1648* (Amsterdam-Maarssen, 1987), 509, nr. 257, Leiden, 1648/01/07. Salmasius probably refers to a nickname of Morus, 'Aethiops', see e.g. Burmannus (ed.) *Sylloges*, III, 647–648, nr. 76, Amsterdam, 1652/10/18, Isaac Vossius to Nicolaas Heinsius. Perhaps Morus had a conspicuously dark complexion, but this nickname could of course also be an innuendo on his name.

<sup>35</sup> Leroy *et al.* (eds.) *Claude Saumaise & André Rivet*, 512–515, nr. 258, [1648/01].

sought to develop it as a sort of training-ground where their protégés could prepare themselves for careers that would eventually take them to more prestigious institutions such as Leiden. However, this affair was also of more general importance: the outcome of it would decide whether the character of the teaching at the new theological faculty at Harderwijk would be punctiliously orthodox Calvinist, or of a less strict theological nature. Spanhemius, but also Rivet, had contacts in Geneva, both in the city council and at the local university, as well as among the ministers of the reformed church there. To prevent his opponents from attacking him at home, Morus tried to establish that the Genevan secular and ecclesiastical authorities would not tamper with his plans.<sup>36</sup> On his bidding the majority of the professors and ministers of Geneva readily declared that Morus had been a ‘minister and a highly dignified professor at our academy, our colleague and brother dear [to us] in many respects’.<sup>37</sup> The city senate of Geneva formally declared that *Alexandre Morus Pasteur & Professeur en Theologie & à present Recteur de nostre Academie* in the past had been accused of heresy, but that they were now ‘fully assured of the falsity of these rumours’.<sup>38</sup> The next step Morus took was to publish these pronouncements before the Harderwijk curators convened to elect a candidate. Salmasius believed that it would be best to print both testimonies mentioned above as well as an oration by Morus on Calvin’s teaching. As Amsterdam was without a doubt the best place to publish at very short notice, Salmasius entrusted Isaac Vossius with the supervision. The oration did appear on time,<sup>39</sup> as did, with some difficulty, the collection of testimonies entitled *L’innocence vangée*.<sup>40</sup> But because of the great haste with which this last volume had been edited, it contained a great number of typographical errors. It was rightly feared that Spanhemius would exploit these to ridicule this apologetic collection.<sup>41</sup>

Salmasius’ main agent in Harderwijk, professor Cornelius Tollius (Rhenen, c. 1628 – Gouda, 1654), had as a student lived with the Vossius family in Amsterdam. It was not uncommon for students

<sup>36</sup> Morus reported repeatedly about the realization of this plan, see University Library Leiden Ms. PAP 7, [Geneva], 1648/01/19; *ibid.*, Geneva, 1648/01/26.

<sup>37</sup> Morus, *Fides publica*, 81–87, Geneva, 1648/01/25.

<sup>38</sup> *Ibid.*, 88–92, Geneva, 1648/01/26.

<sup>39</sup> Alexander Morus, *Calvinus* ... (Amsterdam, 1648); cp. Ter Horst, *Isaac Vossius en Claudius Salmasius*, 47–48, nrs. 33, 34, [Amsterdam] 1648/03/21, 1648/03/27.

<sup>40</sup> Cf. *ibid.*, 46–50, nrs. 29–39.

<sup>41</sup> Ter Horst, *Isaac Vossius en Salmasius*, 50, nr. 39, 1648/04/07, Salmasius to Is. Vossius; University Library Amsterdam Ms. III E 8 nr. 169, Amsterdam, 1648/04/09, Tollius to Is. Vossius.

to rent lodgings at the home of one of their professors, an arrangement that usually resulted in a patron-client relationship between the student and his landlord. In October or November 1647 Tollius asked Gerard Vossius to recommend Morus to the Harderwijk curators. But unlike his son, Vossius sr. refused to side with the Genevan theologian. He answered his former pupil that he had heard much about Morus' qualities, but that he nevertheless refused to second any of the candidates.<sup>42</sup> In his turn Spanhemius also tried to enlist Vossius' support, but again Vossius sr. refused to commit himself.<sup>43</sup> So Gerard Vossius kept aloof of this affair. However, his impartiality did not withhold him from gathering information about the manoeuvres of both parties. In April 1648 he wrote to Ludovicus Crocus, professor of theology at the Gymnasium in Bremen, about the latest developments.<sup>44</sup> He assumed that his correspondent had already seen the collection of testimonies in favour of Morus, which had recently been printed in Amsterdam.<sup>45</sup> But meanwhile the Saumur theologian Moïse Amyraut had published an attack on Spanhemius that Crocus had probably not yet seen. There was only one copy of it in the Netherlands, which Amyraut had sent to a friend of his. One is of course tempted to wonder if this 'friend' was perhaps Vossius himself. Be it as it may, Vossius informed Crocus that Amyraut believed it was not so much Spanhemius but Rivet who was thwarting Morus' chances. Vossius concluded the letter by saying he did not want to get involved in this unworthy bickering, asking his friend ironically whether such behaviour was the essence of theology.

Morus' enemies were indeed not silenced by the publication of the testimonies.<sup>46</sup> Nor were the curators of Harderwijk convinced by this apology.<sup>47</sup> Eventually they appointed another candidate. In full indignation Salmasius claimed that Morus' enemies 'were jealous and persecuted him with more hatred than the Vatican' would have done.<sup>48</sup> But, in fact, Salmasius himself was among those who

<sup>42</sup> Colonesius (ed.) *Vossii epistola*, 454, nr. 541, Amsterdam, 1647/11/05.

<sup>43</sup> *Ibid.*, 455–456, nr. 544, Amsterdam, 1648/01/18.

<sup>44</sup> *Ibid.*, 456–457, nr. 545, Amsterdam, 1648/04/28.

<sup>45</sup> Vossius was referring to *L'innocence vangee*.

<sup>46</sup> Cf. Ter Horst, *Isaac Vossius en Salmasius*, 50–51, nr. 40, 1648/04/18, Is. Vossius to Salmasius; *Claude Saumaise & André Rivet*, 535–537, nr. 265, Leiden 1648/04/02, Salmasius to Rivet.

<sup>47</sup> Cf. Ter Horst, *Isaac Vossius en Salmasius*, 51, nr. 42, 1648/05/02, Is. Vossius to Salmasius.

<sup>48</sup> University Library Amsterdam Ms. K81a. Leiden, 1648/05/08, Salmasius to David le Clerc.

were most to blame for this failure. The Frenchman had taken up residence in the Netherlands in 1632, but in 1648 he still did not speak a word of the local vernacular. He hated the climate and was appalled by the fact that the Dutch showed very little deference for him, a French nobleman. In his campaign for Morus, he did not take the trouble to inform himself of the local situation. He did not even know the proper identity of the curators. For a long time he assumed that one of them was a certain *Monsieur de Vigh* and that there was another one whom he called *Monsieur de Isendorne*.<sup>49</sup> It was only at the end of March 1648 that he was corrected in this by Rivet, who informed him that there was only one Joost Vijgh, lord of Isendoorn.<sup>50</sup> As late as October 1648 he wrote in a letter to Rivet that his main opponent was a curator who was burgomaster of Harderwijk and was named 'Vitten'.<sup>51</sup> But there actually was no curator whose name came even close to that of this enigmatic 'Vitten'. Salmasius' aid in this matter was Tollius, the curators' secretary. Had he been asked, he could have supplied him with ample information about the personal backgrounds of the curators. But it appears the French erudite did not bother with such trivial details. Perhaps he was convinced that his reputation was enough and that he could set out the appropriate tactic without any knowledge of the local situation. Whatever his strategy may have been, it failed.

Very soon after the humiliating experience with Harderwijk, Morus received the offer of a professorship at the Athenaeum Illustre of Middelburg in Zeeland. And in 1652 the burgomasters of Amsterdam appointed him professor of *historia ecclesiastica* at their Athenaeum. The following six years of his biography are stacked with scandals caused by his sexual misconduct. One of these affairs cost him the support of his patron Salmasius after he had assaulted an English girl at Salmasius' home. With good reason Constantijn Huygens (The Hague, 1596–1687) made fun of Morus in January 1654 as a man who had *Plus de rime que de raison*.<sup>52</sup> However, as long as the Amsterdam burgomasters took no offence to his immoral behaviour, Morus' position was not in jeopardy. It was only when he decided, in 1658, to accept a call from the consistory of Paris, and left his post

<sup>49</sup> Leroy *et al.* (eds.) *Claude Saumaise & André Rivet*, 518–521, nr. 260, [beginning of February 1648], Salmasius to Rivet.

<sup>50</sup> *Ibid.*, 522–524, nr. 261, [1648/03/22], Rivet to Salmasius.

<sup>51</sup> *Ibid.*, 547–555, nr. 270.

<sup>52</sup> J.A. Worp (ed.) *De gedichten van Constantijn Huygens*, 8 vols. (Groningen, 1891–1899), V, 113–114.

without properly asking his superiors for their consent, that they withdrew their support.<sup>53</sup> After serving the Huguenot congregation in Paris for another twelve years, during which he again became the centre of a series of scandals, he died in 1670.

### III. *Brokerage*

These two case histories show what qualities were required for a successful patron of scholars. First and foremost it was imperative for him to be widely recognized as erudite in his own right. Both Nicolaas Heinsius and Salmasius could claim such esteem. Although Heinsius was not a professor, he was a very productive scholar. Apart from philological editions he also composed poetry of his own. Besides occasional work such as a laudatory poem in 1650 for Queen Christina of Sweden, he published several collections of verse, in which he described his journey to Italy in the 1640s or sang the praise of friends like Gronovius or Constantijn Huygens and his son Christiaan.<sup>54</sup> But knowledge and erudition alone were not enough, as is clearly shown by the failed attempt of Salmasius to secure the nomination of his protégée Morus. Salmasius was ill-informed about the rather intricate relations and procedures that were so characteristic of Dutch politics, whereas his mortal enemy Nicolaas Heinsius was an expert in this field. In fact, Heinsius was exceptionally well suited for the role of intermediary between politics and academic life. He was the only son of the famous Leiden professor Daniel Heinsius, who as university librarian and secretary of the university senate had connections not only with many scholars, but also with numerous powerful and influential people. Through him, his son Nicolaas knew many of these people well. In many respects Nicolaas was the equivalent of the most highly esteemed academics of the day, who could be trusted because he did not pose a threat in career matters. As he never strove for a professorship himself, he was not a competitor in the scholarly squabble for academic honours.<sup>55</sup>

<sup>53</sup> The burgomasters were in fact infuriated, see GA Amsterdam Archive 5024 inv.nr. 2, fo. 121v. 1658/08/31; *ibid.* Archive 5023, fo. 190, Amsterdam, 1659/03/25.

<sup>54</sup> *Christina Augusta* ... (Stockholm, 1650); *Poemata* (Leiden, 1653); *Poematum nova editio* (Amsterdam, 1666).

<sup>55</sup> On him F.F. Blok, *Nicolaas Heinsius in dienst van Christina van Zweden* (Delft, 1949).



The inheritance of his mother enabled him to concentrate on his literary activities and to make a *grand tour* of France and Italy. Later he was employed by Queen Christina of Sweden, as so many other men of learning among whom Salmasius and Descartes, and sent by her to Italy to buy manuscripts and other specimens of high culture that could embellish her court. Subsequently he visited Sweden as ambassador of the Dutch States General. In that capacity he also visited Muscovy. As a diplomat he had ample opportunity to extend his relations with powerful people. Furthermore Nicolaas had an influential position in the book trade. In Leiden his father had been the trusted adviser of the famous publishing house of the Elseviers, while Nicolaas had that position for the Elsevier branch in Amsterdam. Daniel Elsevier appears to have trusted his judgement completely.<sup>56</sup> It was, therefore, wise for any scholar who wanted his works to be published by the prestigious Elseviers, to be on the best of terms with Nicolaas.

Heinsius' role was that of a broker, a mediator between people who belonged to two different categories. In a way his position concurred with that of a 'power-broker' or that of a 'cultural broker'. The first of these two concepts was developed by social scientists and subsequently adopted by historians. It defines the position of people who serve as middlemen between rulers and ruled. To enforce their wishes the rulers use these brokers, but in their turn the brokers inform them about the wishes of people from lower social or political levels.<sup>57</sup> As such these brokers have a clear, albeit not always very comfortable, position as the two other parties depend on their services. The usual 'cultural broker' is an interpreter who must translate not only the exact words exchanged during a conference where people speak different languages, but also make the particularities of one

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<sup>56</sup> Cf. Alphonse Willems, *Les Elzevier. Histoire et annales typographiques* (Brussels, 1880), CCXXXI–CCXXXII; David W. Davies, *The World of the Elseviers 1580–1712* (The Hague, 1954), 112. See also W.R. Veder (ed.) 'Brieven van Daniël Elsevier aan Nicolaas Heinsius (9 mei 1675 – 1 juli 1679). Volgens het handschrift, bewaard ter Universiteits-bibliotheek te Utrecht, met enkele aantekeningen uitgegeven', in: *Bijdragen tot de geschiedenis van den Nederlandschen boekhandel* 2 (1885, 1890), 404–505.

<sup>57</sup> Cf. the work of social scientists like Jeremy Boissevain, *Friends of Friends. Networks, Manipulators and Coalitions* (Oxford, 1974); Anton Blok, *The Mafia of a Sicilian village, 1860–1960. A Study of Violent Peasant Entrepreneurs* (Oxford [1974]), or historians like Sharon Kettering, *Patrons, Brokers, and Clients in Seventeenth-Century France* (New York, 1986); Linda Levy Peck, *Court Patronage and Corruption in Early Stuart England* (London, 1990); Ronald G. Asch and Adolf M. Birke, *Princes, Patronage, and the Nobility. The Court at the Beginning of the Modern Age c. 1450–1650* (London-Oxford, 1991).

society intelligible to other, entirely foreign people. In that sense, he also acts as a go-between between two different cultures.<sup>58</sup>

Being both a highly respected erudite and an experienced civil servant, Heinsius was the appropriate person to bridge the gap between academy and administration. He corresponded with countless famous scholars, many of whom he had met personally during his numerous travels. But he also had a keen eye for new talent and was always ready to promote the interests of promising students. His relations with powerful and influential people were excellent, particularly when they had a personal interest in culture and matters of learning. Members of the provincial and municipal oligarchies valued his recommendations for professorial chairs or comparable posts. An immense number of letters written or received by him has been preserved and it is probably impossible for any modern scholar to appreciate properly the richness of his correspondence. But those who have had the opportunity to read only part of it will agree that Heinsius was a friendly man. However, that does not imply that his sole motive for all the services he rendered to his friends was his awareness of the duties he had towards them and other acquaintances. He was sincerely devoted to his personal friends, but the knowledge that, if everything went well, all parties would be grateful and therefore indebted to him, was probably as inspiring as the bonds of loyalty and friendship.

Heinsius was not the only patron of scholars and erudite young talents, but he was, without doubt, the most successful. His close friend Gronovius, for instance, took several promising students under his protection. In his Deventer period Gronovius married twice, both times with women from families that belonged to the local oligarchy. It is therefore not surprising that after his departure the Deventer council nominated the candidate he had recommended as his successor, namely his former student Johannes Georgius Graevius. After studying in Amsterdam and Deventer, Graevius had been nominated professor in Duisburg in 1656 on Gronovius' recommendation. Two years later Graevius succeeded his patron in Deventer and from there he was called to Utrecht in 1661 for the chair of history. So Gronovius was a patron in his own right, but his connections

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<sup>58</sup> See for instance Margaret Connel Szasz (ed.) *Between Indian and White Worlds. The Cultural Broker* (Norman, s.a.); G. Welz, 'Putting a Mirror to People's Lives. Cultural Brokerage, Folklore, and Multiculturalism', in: *Ethnologia Europaea* 24 (1994), 45–49; N.L. Hagedorn, 'A Friend to Go between Them'. The Interpreter as Cultural Broker during Anglo-Iroquois Councils, 1740–70', in: *Ethnohistory* 35 (1988), 60–80.

with the world of politics were never as broad and varied as those of Heinsius and as a broker Gronovius could not match the influence of his close friend.

Well-kept ties with the world of politics were a prerequisite for a successful broker, but they could sometimes be too close. Constantijn Huygens for instance was highly respected as a learned erudite. As personal secretary of several princes of Orange-Nassau he was also a major player in the Dutch political arena. As curator of the short-lived Collegium Auriacum, the Athenaeum Illustre that was founded by stadholder Frederick Henry in 1646, he even had a direct say in the nomination of new professors there. But he never tried to gain a broker's position like Heinsius. Because of his function at the court of the stadholder he probably had to keep a certain distance between himself and the daily affairs of universities and other athenaea, with the sole exception of Breda of course. Although Heinsius at times fulfilled the role of civil servant, he enjoyed greater independence and never really participated in day-to-day politics. Like the academicians, he was well informed but never posed a threat to the position of members of the political elite.

To maintain his special status as a broker, Heinsius had to be careful not to compromise himself. In matters of religion, Gronovius and Graevius held rather libertarian views, but they were always careful not to offend more orthodox people. An example of this attitude is the way in which Heinsius and Graevius reacted to the publication in 1678 of a satirical denial of the reality of original sin and the Fall of Adam. The identity of both the author and the printer lay hidden under pseudonyms that were in themselves an overt mockery of all Christian orthodoxy.<sup>59</sup> Heinsius and Graevius admired the wide reading of the anonymous author, but they certainly did not want to get involved in the scandal that this book caused.

In May 1679 Graevius drew Heinsius' attention to 'this brand-new booklet about the Fall of Adam, that I haven't seen before at your home, and I certainly do not hope to find it there. A person who so openly ridicules the holy scriptures, seems to lack all common sense'.<sup>60</sup> Two weeks later he wrote in indignation to his friend that

<sup>59</sup> [Hadrianus Beverlandus] *De peccato originali* ... ([Leiden], 1678), published under the pseudonym Themidis Alumnus and with the impressum: Eleutheropoli, in horto Hesperidum, typ. Adami Evæ terræ filii. See also Rudolf de Smet, *Hadrianus Beverlandus (1650–1716). Non unus e multis peccator. Studie over het leven en werk van Hadriaan Beverland* (Brussels, 1988).

<sup>60</sup> Burmannus (ed.) *Sylloges*, IV, 597, nr. 536, Utrecht, 1679/05/19, Graevius to Heinsius.

the author had dedicated this ‘despicable’ book to him, Heinsius.<sup>61</sup> Heinsius now suddenly risked becoming mixed up in this affair and Graevius did everything he could to ward off this danger. A further two weeks later he reported to his friend that he had spoken with the author and had received from him the promise that he would ‘spare’ Heinsius and himself and would have no further dealings with his book and devote all his energy to his study.<sup>62</sup>

At that point Graevius certainly knew the writer’s identity, but in their correspondence the two friends kept on referring to him as ‘the author’, a clear sign of the delicacy of this matter. Only when the law-student Adriaan Beverland at last came forward publicly, did the two scholars begin to refer to his name in their letters. In July 1679 it became clear that, despite his promises, Beverland was preparing a second edition and, according to Graevius, in taverns and brothels people openly discussed its arrival.<sup>63</sup> Beverland had asked Graevius and Heinsius to help him, but they refused to assist him in any way. In November 1679 Beverland was banished from Holland because of his blasphemy. Graevius wrote ‘Beverland is mad’ and Heinsius did not contradict him.<sup>64</sup> Beverland paid the ‘price of folly’, the *pretium stultitiae*.<sup>65</sup>

In political matters the two friends clung to this same principle of moderation. Neither Graevius nor Heinsius were convinced Orangists, but they were careful not to show their political convictions too openly. According to his foster son Petrus Burmannus (Utrecht, 1668 – Leiden, 1741), Graevius had accepted the call to Deventer in 1658 because he preferred the ‘attractive aspects of a free Republic’, where the same law applied indiscriminately to everyone and nobody could improve his position by way of machinations and conspiracies at court.<sup>66</sup> And in 1661 Graevius himself wrote to Antonius Perizonius (Westphalia, c. 1626 – Deventer, 1672), a fellow German who had been appointed professor of theology at Deventer, that the liberty to express one’s opinion freely was one of the more pleasant characteristics of a Republic.<sup>67</sup> During his stay in Overijssel, where Deventer is located, Graevius developed friendly relations with a number of

<sup>61</sup> *Ibid.*, 598, nr. 537, Utrecht, 1679/05/30, Graevius to Heinsius.

<sup>62</sup> *Ibid.*, 602–603, nr. 542, Utrecht, 1679/06/14, Graevius to Heinsius.

<sup>63</sup> *Ibid.*, 606, nr. 546, Utrecht, 1679/07/08 (06/28), Graevius to Heinsius.

<sup>64</sup> *Ibid.*, 624–625, nr. 570, Utrecht, 1679/11/16, Graevius to Heinsius.

<sup>65</sup> *Ibid.*, 622–623, nr. 567, Utrecht, 1679/11/01 (10/22), Graevius to Heinsius.

<sup>66</sup> Joannes Georgius Graevius, *Orationes quas Ultrajecti habuit* ... (Delft, 1721), 578–579.

<sup>67</sup> University Library Leiden Ms BPL 337, Deventer, 1661/07/08.

convinced republicans, such as the nobleman Radbod Schele (1622–1662), whose death he commemorated in an obituary speech.<sup>68</sup> After the sudden death of stadholder William II in 1650 Schele had become one of the central figures in the anti-Orangist faction that in the 1650s and 1660s dominated politics in the province of Overijssel. Schele was a personal friend of both Graevius and Gronovius. The proof of this friendship is that at Gronovius' engagement in 1659, the first two had been his official witnesses.<sup>69</sup>

Four years after Schele's death another friend, the Deventer professor Gosuinus Hogersius (Deventer, 1636–1676) published Schele's programmatic defence of the republican form of government, *Libertas publica*, with a pamphlet of his own.<sup>70</sup> According to this, the princes of Orange could be compared to Julius Caesar, as their sole aspiration was to gain tyrannical power. After Schele's death, Graevius asked Heinsius and Gronovius to contribute to a commemorative collection of poems.<sup>71</sup> We may assume that he deeply regretted this public affirmation of his republican views a few years later when the political situation in the Dutch Republic had suddenly changed dramatically.

In 1672 the United Provinces were attacked from all sides. In one swift stroke the French army and its allies occupied most of the Republic's territory, including Utrecht. In the unoccupied province of Holland the 'True Freedom' faction lost its power. Its leaders, raadpensionaris Jan de Witt and his brother, were literally cannibalised by an Orangist mob. William III took office as stadholder holding more power than any of his predecessors. One of the first things he did was purge the governing bodies of the provinces and towns that he now dominated of anyone who was disloyal to him. When the French and

<sup>68</sup> 'In funere Rabodi Hermanni Schelii habita Ultrajecti Anno MDCLXII', in: Graevius, *Orationes*, 36–68.

<sup>69</sup> Cf. Burmannus (ed.) *Sylloges*, III, 404, nr. 335, Leiden, 1659/11/29, I, Gronovius to Heinsius.

<sup>70</sup> Rabodus Hermanus Schelius, *Libertas publica. Liber posthumus* (Amsterdam, 1666), in one volume with Theophilus Hogersius, *Oratio C. Iulium Caesarem tyrannum fuisse* (Deventer, 1666). Hogersius also published a Dutch version: Radboud Herman Schele, *De gemene vryheit*; Theophilus Hogersius, *Vertoog van dat Julius Cesar een tyran heeft geweest; Mitsgaders die lyk-tranen over de doot van de grote Schele* (Amsterdam, 1666). Another edition of this Dutch translation appeared almost simultaneously in Rotterdam.

<sup>71</sup> Cf. Burmannus (ed.) *Sylloges*, IV, 36–37, nr. 22, Utrecht, 1662/07/21, Graevius to Heinsius. It was published a century later by the fiercely anti-Orangist Amsterdam professor Petrus Burmannus Secundus in his edition of Rabodus Hermannus Schelius, *Opuscula politica ...* (Leiden, 1772), 457–486.

their allies almost completely withdrew from the territory of the Republic in 1673, it was expected that the young stadholder would do the same in the provinces that were then liberated. Utrecht was evacuated by the French in November 1673, but it took William several months before he could enter the town. In the meantime, his supporters, and particularly the reformed faction led by the orthodox professor Gisbert Voetius (Heusden, 1589 – Utrecht, 1676), spread the rumour that the prince would not only purge the provincial and municipal administrations, but also the university.

Although Graevius had never played a prominent part in the many sharp conflicts that this orthodox group and the local government had fought during the previous decades, he had every reason to fear that if such a purge would really be initiated, he too would fall victim to it. Not only did he have several personal friends whom the Voetians considered enemies, the Cartesian professor and minister Franciscus Burmannus (Leiden, 1628 – Utrecht, 1679),<sup>72</sup> for example, and the libertarian physician and town official Lambertus van Velthuysen (Utrecht, 1622–1685).<sup>73</sup> But Graevius had also participated enthusiastically in circles where new philosophical and scientific ideas were discussed, the most famous of which was the so-called *Collège des Scavants*.<sup>74</sup> His predilection to use the works of classical authors like Suetonius or Cicero as basic texts for his teaching, did not make him popular with the Orangists either, as they had heavily criticized the bid for absolute power of Caesar and the Roman emperors. The similarity between their imperial program and that of the prince of Orange was all too obvious.

Graevius urged his friend Heinsius to find out whether his position was really in danger and if so, how the balance could be restored in his favour. He asked him to approach Constantijn Huygens the younger, who had recently succeeded his father as secretary to the prince. Although Heinsius immediately sent the reassuring answer that at court nobody was thinking of dismissing Graevius, as this would snuff out the 'light of the Academy',<sup>75</sup> Graevius' fears were not much eased. During the summer of 1674 Graevius repeatedly

<sup>72</sup> After Burmannus' death Graevius wrote that the deceased had been his best friend second only to Heinsius, Burmannus (ed.) *Sylloges*, IV, 625, nr. 571, Utrecht, 1679/11/11 (21?), Graevius to Heinsius.

<sup>73</sup> Graevius wrote to Heinsius that he felt great concern for Van Velthuysen, *ibid.*, 205–206, nr. 148, Utrecht, 1673/12/03.

<sup>74</sup> Cf. *ibid.*, 489–490, nr. 416, Utrecht, 1677/04/29, Graevius to Heinsius.

<sup>75</sup> Burmannus (ed.) *Sylloges*, IV, 258, nr. 184, The Hague, 1674/04/30, Heinsius to Graevius.

pressed his friend to exhaust every contact he had in The Hague to find out whether there was any real danger. In April, when the stadholder came to Utrecht to purge the city government of his opponents, Graevius welcomed him on behalf of the university in a very eloquent speech.<sup>76</sup> When this oration appeared in print, Graevius immediately sent fourteen copies to Heinsius and instructed him to pass six of them to the stadholder.<sup>77</sup> Of the remaining copies he gave seven to specifically named close assistants of the prince. The last copy was of course meant for Heinsius himself.

To feel completely secure, Graevius hoped that the stadholder would issue a ‘diploma’ in which his position was officially affirmed. After lengthy negotiations such an official statement was in fact issued. The atmosphere in Utrecht was apparently so tense that Graevius sincerely believed he had to obtain such a defensive weapon. At court the perspective was more relaxed. Huygens Sr., for instance, believed that this document was completely unnecessary. In a little poem on the ‘new diploma of Graevius’, which he dedicated to Heinsius, Huygens mocked Graevius’ exaggerated action:

Nil superest gravius quod Graevius horreat, Heinsi,  
Invidia tandem frustra frendente triumphet.  
Fallor enim et fallo, nisi aheneus hic est.<sup>78</sup>

Nothing graver is left that could fill Graevius with horror, Heinsius,  
Now envy is finally vainly gnashing its teeth, he triumphs.  
I am mistaken and a cheat, if this here is not as hard as brass.

It was incidents like this one that made clear what the limits were that libertarian academics in the Dutch Republic had to respect. Although William III himself held rather orthodox convictions, he never really attempted to suppress non-conformist views. He sometimes pleased his Voetian supporters by preventing the appointment of a less orthodox candidate for a professorship, as he did for instance in 1698 in Utrecht.<sup>79</sup> In general, however, a libertine academic would not be hindered as long as he was discrete. Beverland had simply been too bold, too disrespectful and, what is perhaps even more important, he could be sacrificed without the risk of creating new

<sup>76</sup> J.G. Graevius, *Panegyricus serenissimo Principi Guilielmo Henrico...* (Utrecht 1674).

<sup>77</sup> Burmannus (ed.) *Sylloges*, IV, 267–268, nr. 194, Utrecht, 1674/06/02.

<sup>78</sup> Worp (ed.) *De gedichten van Constantijn Huygens*, VIII, 112.

<sup>79</sup> G.W. Kernkamp (ed.) *Acta et decreta senatus. Voedschapsresolutiën en andere bescheiden betreffende de Utrechtsche academie*, 3 vols. (Utrecht 1936–1940), II, 165, 1698/08/01.

problems. And although William III had far more power than any of his predecessors, especially after 1689, his actual influence remained rather limited in some parts of the Republic. In the early 1680s for instance, his cousin, the stadholder of Friesland, appointed several less orthodox professors at the university of Franeker, probably because William had discharged or rejected them.<sup>80</sup> And the burgomasters of Amsterdam were anything but willing to let the stadholder dictate to them whom they could or could not accept as professor at their Athenaeum. The complexity of the diverse and constantly shifting balances of power in the Dutch Republic was immense, and it was imperative for anyone striving for a professorial chair there either to gain insight into these intricacies himself or to find a well-informed friend who could act as a go-between.

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<sup>80</sup> Cf. Th.J. Meijer, *Kritiek als herwaardering. Het levenswerk van Jacob Perizonius (1651–1715)* (Leiden, 1971), 45–46.





# THE RELIGIOUS CONTEXT OF THE EARLY DUTCH ENLIGHTENMENT: MORAL RELIGION AND SOCIETY

ERNESTINE VAN DER WALL

## *I. Piety and the Early Dutch Enlightenment*

From a religious perspective, the early Dutch Enlightenment can be regarded as a debate on morality and religion. Fundamental to the debate was the question: how should society's moral foundations be secured in a rapidly changing world? Or, in late seventeenth-century terms, what role should be assigned to piety in order to safeguard society's stability? From about 1650 onwards Dutch intellectuals grappled with this fundamental question of the relationship between piety and society. It is this deep concern with society's moral stability that gives us insight into the vehemence of early Enlightenment discussions of the matter in the United Provinces.

It may be considered unusual to view piety as a central concern of the early Enlightenment debate. Yet did not Spinoza formulate his ideas in his *Tractatus theologico-politicus* (1670) with a view to piety? Besides the 'Peace of the Commonwealth', 'Piety' is explicitly mentioned as one of the two main factors to be reckoned with when the freedom to philosophize is at stake. Spinoza argues that such a freedom can be granted without threatening piety and the peace of the commonwealth, but that its suppression is a danger to both. While the Jewish philosopher certainly differed in view from Calvinists and liberal Protestants on the nature of piety, it cannot be denied that *pietas* was widely perceived as playing a fundamental role in relation to society. On this matter enlightened thinkers and traditionalists found a common ground, although they approached it from different angles. We may see the *Tractatus* in the context of contemporary discussions within Dutch society of the nature of piety and its scriptural basis. Did piety need to be prescribed in the most minute detail according to a strictly Puritan scheme or could it merely be seen as obedience, consisting solely in loving one's neighbour, as Spinoza contended? Fundamentally the battle which engaged so many in the late seventeenth and early eighteenth century may be said to revolve around the choice between religious and philosophical piety.

Among traditional Calvinist believers in the seventeenth-century Dutch Republic there were many who did nothing to conceal their Puritan ideal of a 'godly' nation. Inspired by English and Scottish Puritanism, these Dutch Pietists, or Voetians (named after their leader Gisbertus Voetius) wished for a theocratic society along precisian lines. As proponents of a so-called 'Further Reformation' these Pietists strove to achieve a Reformation of morals, promoting ascetism, a strict Sunday observance, austerity in matters of dress, while prohibiting dancing, card-playing, dice, the use of organs in Church, and laughter. They wanted this ethical Reformation, with its theocratic aspirations, to start within the family, which was considered a 'little church'. From this small nucleus, a moral revival would spread over the nation. Some Pietists deplored the fact that the sixteenth-century Reformers had abolished Roman Catholic rituals and institutions such as monasteries, celibacy, fasting and daily masses since these served as useful incentives to 'godliness'.

The attempt to promote this precisian-theocratic ideal, occasioned a clash with fellow Protestants who cherished a more Erastian view of the relationship between Church and State and who opted for a liberal society, yet without relinquishing the bond between religion and morality. Around 1700 morality and religion were still regarded as two sides of the same coin. Pierre Bayle's observations about virtuous atheists were not to have any impact for many decades. Between 1650 and 1720 the religio-political scene in the Dutch Republic was dominated by the struggle between Puritan and liberal Protestants over the character of a society that saw itself confronted with 'enlightening' tendencies. The differences of opinion concerning the notion of piety have to be seen in the light of contemporary religio-political ideals. Should Church and State in the Dutch Republic be ruled according to a liberal, enlightened version of piety, or according to a strictly Puritan version of godliness as formulated by the men and women of the Further Reformation? That it was first and foremost a question of practical-political ethics is all the more obvious when one takes a look at contemporary apologetics.

## II. *Enlightenment, Apologetics and Piety*

The apologetic perspective may shed light upon the particular nature of the early Dutch Enlightenment debate. The apologists' perception of enlightening tendencies can help us to grasp some of its essentials.<sup>1</sup> If, for example, we take a look at the terms in which conservative apologists perceived the 'enemies' of their day, we get an inkling of the basic points. Often we find a curious mix of old and new labels, indicative of the apologists' ambiguity towards contemporary phenomena. Traditional labels such as Pelagianism, Arianism, and atheism were now joined by new ones such as Arminianism (or Remonstrantism), Socinianism, Salmurianism, indifferentism, deism, and naturalism. Although such terms were part and parcel of polemical discourse, we may wonder whether they did not, in some instances, denote specific content. Atheism, for example, was often loosely used, indicating the slightest deviation from orthodoxy. Among historians it is a matter of debate to what extent the 'atheistic threat' was a real one in the early modern period. However, one cannot deny that throughout Europe, from the late seventeenth century onwards, atheistic tendencies came to the fore. This has been shown most recently by Jonathan Israel in his fascinating account of the Radical Enlightenment.<sup>2</sup> At the time there was a growing historical awareness of the phenomenon: it was during the early Enlightenment that a series of histories of atheism came to be written.

It goes without saying that the early modern upsurge of Christian apologetics is closely connected with the debate on atheism, deism and indifferentism which really got underway in the second half of the seventeenth century. Apologetic literature flooded the European scholarly and religious market. It is clear that Christian apologetics—both Roman Catholic and Protestant—entered a new stage in which Cartesianism, Spinozism and deism came to be seen as undermining Christian doctrine and morality. In the Dutch Republic, Cartesianism and Spinozism were dominant factors in the early stages of this process, while deism, though acknowledged as a novel enemy from

<sup>1</sup> Hans-Martin Barth, *Atheismus und Orthodoxie. Analysen und Modelle christlicher Apologetik im 17. Jahrhundert* (Göttingen, 1971); Ernestine van der Wall, 'Religiekritiek en apologetiek in de achttiende eeuw', in: *De Achttiende Eeuw* 32 (2000), 17–35.

<sup>2</sup> Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001). See also, for example, Michael Hunter and David Wootton (eds.) *Atheism from the Reformation to the Enlightenment* (Oxford, 1992).

about 1720, only came to be seen as an important force in the Dutch Republic from the 1750s onwards.

The rise of the new philosophies implied a decisive change in the status of theology. In the last decades of the seventeenth century theology began to lose its hold on moral and doctrinal matters in society in general. Theology and its representatives became ideal objects of ridicule. A process of de-theologization set in from which theology would never recover. One of the main causes, besides the final breakthrough of Copernicanism, was the new role in society which philosophy was to acquire. Philosophy pursued fresh aims by treading new intellectual paths, while theology anxiously looked at the consequences of this discipline for its own role. Was it to remain the mistress or was it to be relegated to the former position of philosophy, that of a servant, or even less? Due to Cartesianism and Spinozism, a new spiritual hierarchy was achieved, which had far-reaching implications. If theology were no longer mistress, then its proponents were no longer masters. The new hierarchy now headed by philosophy implied a substantial loss of ecclesiastical authority—a fact that was welcomed by some, deplored by others.

The important shift in balance from theology to philosophy was often regarded by conservative as well as liberal believers in terms of unbelief, irreligion, and atheism. Besides employing apologetic strategies such as physico-theology and prophetic theology, across Europe people took recourse to propagating piety, that is, laying stress on the ethical aspects of faith. Although the wish for a pious society was an ideal in itself, in the later seventeenth century it came to be connected with the debate on deism and atheism. It was hoped that moral religion, in whatever form and from whatever confessional background, would help to further faith and strengthen the morale of the nation in an enlightening age. Those who, from a Pietist perspective, emphasized the need for moral religion, might combine this mentality with an enlightened stance. Pietism and Enlightenment show a remarkable affinity on several issues.<sup>3</sup>

In this connection it is interesting to note that there is a dynamic relationship between Christian apologetics and the Enlight-

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<sup>3</sup> See for instance Emanuel Hirsch, *Geschichte der neuern evangelischen Theologie im Zusammenhang mit den allgemeine Bewegungen des europäischen Denkens* II (Gütersloh, 1951; 5th ed. 1975), 6, *passim*; Klaus Scholder, 'Grundzüge der theologischen Aufklärung in Deutschland', in: Heinz Liebing and Klaus Scholder (eds.) *Geist und Geschichte der Reformation* (Berlin, 1966), 460–486; Norbert Hinske (ed.) *Zentren der Aufklärung I. Halle: Aufklärung und Pietismus* (Heidelberg, 1989).

enment. To what extent did enlightened ideas influence orthodox anxieties and, no less important, vice versa? The Enlightenment itself may be regarded as having an impressive apologetic potential. Some enlightened thinkers were filled with apologetic intentions: by modernizing the Christian faith they wished to attract contemporary liberal intellectuals. In this way these ‘modern’ Christians represent an enlightened genre of apologetics. While this may stretch the definition of apologetics too far, it clearly shows the interdependency of apologetics and the early Enlightenment.<sup>4</sup>

### III. *A Dutch Puritan Attack on Atheism*

Dutch apologists contributed to European apologetics in various ways, happy to advance apologetic arguments which had already proven their defensive value in the past. Like elsewhere in Europe, physico-theology and prophetic theology enjoyed a great popularity in the United Provinces. Many foreign apologetic publications found their way to the Dutch reading public, often having been translated into the vernacular, while some Dutch apologists saw their work translated into various foreign languages. The history of apologetics in the Netherlands, the country of one of the main early modern apologists, Hugo Grotius, is still to be written. We know that not only traditional Roman Catholic and Calvinist authors were involved in apologetic projects, but that Protestant dissenters who were more susceptible to Enlightenment ideals contributed to contemporary apologetics as well.

The apologetic counter-offensive was a united effort which obviously transgressed confessional boundaries. In the United Provinces both the orthodox Calvinist professor of theology Frédéric Spanheim and the renowned Arminian scholar Jean le Clerc published well-known tracts on atheism.<sup>5</sup> In a fundamental work on contemporary dissidents, published in 1694, Spanheim dealt with ‘novatores’, ‘profani’, and ‘anti-Scripturari’ such as Spinoza, Hobbes, and Richard Simon.<sup>6</sup> While he deplored that blasphemous maxims were

<sup>4</sup> Van der Wall, ‘Religiekritiek en apologetiek’, 21–24.

<sup>5</sup> Frédéric Spanheim, *L’Athée convaincu en quatre sermons sur les paroles du Pseaume XIV. vers 1, prononcez en l’Eglise de Leyde* (Leiden, 1676). It is dedicated to Princess douarière de Nassau, born Princess of Orange; Jean le Clerc, *De l’incrédulité* (Amsterdam, 1696); see also Israel, *Radical Enlightenment*, 467, 681.

<sup>6</sup> Fr. Spanheim, *Controversiarum de religione cum dissidentibus hodie christianis, proluxe et cum judaeis, elenchus historico-theologicus* (Amsterdam, 1694). Fridericus Spanheim

published at all, he was even more shocked to see that these pernicious publications started to appear in the vernacular. Like any writer on unbelief, Spanheim was worried about the effect of irreligious notions on morality, and condemned those who looked for happiness in this life instead of the life to come. Here he touched upon a popular theme in contemporary literature on atheism: the deplorable shift of man's focus from the 'Jenseits' to the 'Diesseits'.

Dutch apologists gladly took on the novel enlightened way of writing in the vernacular. The Rotterdam minister Franciscus Ridderus (1620–1683), an outstanding exponent of the Puritan-Pietist 'Further Reformation', published his 'Theological, philosophical and historical lawsuit for God against all kinds of atheists' (1678–1679) in Dutch because, he said it was the common people that ought to be instructed against atheists.<sup>7</sup> It is one of the first full-length anti-atheistic treatises to have been published in the early Enlightenment Dutch Republic. It offered a compendium of well-known irreligious views and their supposed repudiation.<sup>8</sup> Ridderus, a fervent follower of the anti-Cartesian Utrecht theologian Gisbertus Voetius who himself wrote a short but influential piece on atheism, scarcely mentions Descartes, but has a few derogatory remarks to make about Spinoza's *Opera posthuma* and its Preface. Following the literary mode of his day Ridderus couches his ideas in the form of a

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the younger (Geneva, 1632 – Leiden, 1701) studied philosophy and theology and acquired doctorates in both disciplines (dr.phil. under the supervision of Adriaan Heereboord). He was Cocceius' successor in Leiden (1670). His 1670 inaugural oration was directed against the 'novatores' of his day (*De prudentia theologi*). As rector of Leiden University he delivered various lectures, e.g. on comets (*De cometarum et naturae totius admirandis*, 1681) and on the degeneration of Christianity (*De degenerare christianismo*, 1688). Spanheim battled against Cocceianism and Cartesianism. In 1677 he published his *De novissimis circa res sacras in Belgio dissidiis*, followed in 1682 by a similar treatise (*Epistola responsoria ad amicum*). He was also involved in the conversion of the Jews; see his *De causis incredulitatis judaeorum et de conversionis mediis*.

<sup>7</sup> Franciscus Ridderus, *Theologisch, filosofisch en historisch proces voor God tegen allerley atheïsten. Waarin de atheïst wordt ontdekt, overtuigt, wederleydt, gewaarschouwt, ingetoomt, opgeweekt ter bekeeringe*, 2 vols. (Rotterdam, 1678–1679). Ridderus was a learned minister, who published various historical studies. As a poet he caused a scandal by publishing a sensuous marriage poem for a friend: readers found it difficult to find the spiritual meaning of the Song of Songs he said he had intended. On the threat of the 'venom' of unbelief being spread among the common people by the use of the vernacular, see also Israel, *Radical Enlightenment*, 322.

<sup>8</sup> Ridderus does not claim any originality, relying on Duplessis-Mornay, Mersenne, Voetius, Fotherby, Spanheim, Oomius, Wagner and others. He refers to Spanheim's second sermon in *L'Athée convaincu*, in which we find a physico-theological argument related to the human body.

dialogue between a minister and an unbeliever. Various well-known arguments are adduced against atheism such as, for example, the argument from universal consent. Like other apologists the Rotterdam preacher was well aware of the implicit danger of apologetics: ministers should not speak from the pulpit on the question whether there is a God, since by discussing this topic preachers themselves might cause doubt among their audience.

Excuses are made for the host of references to pagan testimonies, but as Ridderus points out, biblical arguments will not do since atheists reject Scripture. So paganism is deployed as a strategical instrument to counter atheism, paganism being in this case mainly classical Antiquity. Here we meet with a literary-historical approach to the problem of atheism, heavily relying upon Cicero, Seneca and others. In accordance with contemporary opinion Ridderus maintains that speculative atheism does not exist, but he knows that there are many practical atheists: people who behave as if there is no God. Man, he says, is comparable to a dog who has lost its master and searches for him. He may not know who his master is, yet he knows that he has one. It is not surprising to see that to Ridderus' mind there is a direct link between belief and morals. Yet he acknowledges that not all atheists live immoral lives, referring to some Indians who do not believe either in God or in Heaven and Hell, but who still live morally respectable lives, albeit in a pagan fashion.

The battle against atheism fought by Ridderus and his fellow Pietists was not only stimulated by the 'godless' notions of Descartes and Spinoza. The dissemination of enlightened views by liberal Reformed Protestants proved to be another impetus for their fight for 'true Christianity'. In the ensuing feud between Puritan and liberal Reformed factions, it was piety and its role in society, that soon became a central issue, as is shown by their continuous debate on Sunday observance. Beginning in the 1650s the struggle for a Puritan Sunday observance lasted up till at least the 1730s. Interventions by the magistrate, locally and regionally, did not prevent the warring parties from continuing their fight. The issue of Sunday observance almost took on a symbolic function in the battle for godliness. Another important instance of their differing ideas on piety is provided by their debate on prophetic theology, a novel genre of apologetics which became a major bone of contention between the Puritan Voetians and their liberal Reformed counterparts, the Cocceians.



IV. *Bible Criticism and  
Early Enlightenment Apologetics:  
Cocceianism and Prophetic Theology*

In the early Enlightenment ‘atheism’ was often associated with attacks on the Holy Scriptures. The rise of modern Bible criticism was viewed by many believers from the perspective of unbelief and irreligion. The divine authority of the Bible was at stake. Comparisons between the Bible and secular texts—in particular non-Christian texts—were regarded as an attack on the sacred character of Scripture. Likewise the unique status of the Bible tended to be undermined by doubts about the Mosaic authorship of the Pentateuch. The accommodation theory (according to which Scripture ‘speaks according to the erroneous notions of the common people of the time’), findings about non-Christian chronology, as well as the idea of the ‘Prae-adamitae’ helped to strengthen the impression that the appreciation of the Bible as a unique Holy Book was definitely a matter of the past.

The fact that such critical notions were put forward not only by philosophical outsiders, but also by a growing number of ecclesiastical insiders, was to become a cause of great concern to traditional believers. The enemy showed itself to be present within the very walls of the Church. Protestant and Roman Catholic theologians who promulgated new exegetical or textual insights concerning the Bible, were accused of playing into the hands of Cartesians and Spinozists. No wonder that early Enlightenment apologetics was largely devoted to the defence of the Bible. At this point ‘prophetic theology’ appeared to be of invaluable support.

Between 1650 and 1750 the argument from prophecy was as popular as the argument from design in the Dutch Republic. The popularity of ‘prophetic theology’ is to be seen in the historical context of the growth of ‘atheism’ couched as modern Bible criticism. Prophetic theology was regarded by many theologians as the most powerful weapon against atheists, alongside that other pillar of early modern apologetics, physico-theology. Both of them bore testimony to the existence of God and His involvement in the Creation and history. While physico-theology appealed to God’s work in nature, prophetic theology appealed to His work in history, offering absolute certainty as well as consolation to believers. The basis of that certainty was to be found in the correspondence between biblical prophecies on the one hand, and history sacred and secular on the other hand. Prophecy was seen as unfulfilled history, while history was interpreted

as fulfilled prophecy. Thus prophetic theology was connected with both Scripture and history.

The Dutch ‘theologia prophetica’ was to become an internationally acclaimed way of dealing with unbelief and irreligion. Students of Dutch prophetic theologians could be found in England, Scotland, as well as the rest of the Continent, especially in Germany and Central Europe. All over early Enlightenment Europe scholars devoted themselves to the study of biblical prophecies. We need only think of Henry More, Isaac Newton, and William Whiston (whose Boyle Lectures on prophecies were fiercely attacked by Anthony Collins in the 1720s). The Warburton Lectures were organized with an explicit reference to this apologetic tradition: they aimed at proving ‘the truth of revealed religion, in general, from the completion of the prophecies in the Old and New Testament, which relate to the Christian Church, especially to the apostasy of papal Rome’. Interestingly enough this genre of apologetics, while fighting atheism (‘ongodisme’ or ‘ongodisterij’), was itself affected by, or even actively took part in promulgating the rationalist tendencies of the early Enlightenment.

Exegetical topics, and the interpretation of Scripture in general, had become central issues in the Dutch Enlightenment debate due to Lodewijk Meyer’s *Philosophia S. Scripturae Interpres* of 1666 and the brothers Koerbagh’s *Bloemhof van allerley lieflijkheyd sonder verdriet* ‘A Garden of All Kinds of Loveliness without Sorrow’, 1668).<sup>9</sup> If books can be seen as marking a beginning in the history of ideas, then one could argue that these publications signalled the start of the religious early Enlightenment in the Dutch Republic. From the time of their publication onwards, the Dutch made a distinction between ‘rational’ and ‘non-rational’ theologians.<sup>10</sup> The Koerbaghs and Meyer were soon to be followed by Spinoza and his *Tractatus theologico-politicus*. It goes without saying that the renewed attention to prophetic theology was particularly due to the latter’s vehement attack on prophets and prophecies.<sup>11</sup>

<sup>9</sup> For the brothers Koerbagh and Lodewijk Meijer respectively, see Israel, *Radical Enlightenment*, 185–217. Adriaan Koerbagh’s radical work *Een licht schijnende in duystere plaatsen* (‘A Light Shining in Dark Places’) remained unpublished until 1974 when the text was edited by Hubert Vandenbossche. Michiel Wielema is preparing a new edition.

<sup>10</sup> Thus Leibniz, ‘Discours préliminaire’, *Essais de Théodicée*, par.14, adding that Bayle liked to refer to this distinction.

<sup>11</sup> See for instance Ernestine van der Wall, ‘The *Tractatus theologico-politicus* and Dutch Calvinism, 1670–1700’, in: *Studia Spinozana* 11 (1995), 201–226.

In the Dutch Republic, prophetic theologians established an influential theological school named after their master, the German-Dutch Orientalist, philologist and theologian Johann Kock/Johannes Cocceius (1603–1669). Cocceius was a man with an independent mind, admonishing his followers to think for themselves, not to accept ideas unthinkingly, not even his own. Because of his great interest in the Bible, his fellow Calvinists called him a ‘scripturarius’ which, like the epithet ‘anti-scripturarius’, was not meant as a compliment.<sup>12</sup> He devoted much of his time to philology—or, as he preferred to name it, ‘godly philology’—which was to become an important discipline in the early Enlightenment, continuing the famous work of earlier Dutch philologists such as Erasmus and Grotius. Due to the steadily growing interest in philology in the early Enlightenment, the ties between biblical exegesis and dogmatics were loosened. This in itself was a major step towards developing a liberal theology.

According to Cocceius, biblical prophecies could be regarded as ‘the history of future things’. In this vein many Reformed theologians developed a ‘theologia prophetica’. But these prophetic theologians were not ‘enthusiasts’ or ‘fanatics’ who believed in new revelations that would be given in their time. To their mind prophetic theology was a true science, with its own methodology, demonstrations, and theoretical concepts, reminding us of Newton’s quest for proven methodological rules in his ‘Fragments from a Treatise on Revelation’. In their quest for proven rules by which to interpret the prophecies, they preferred to use the notion of a ‘chain’. All biblical prophecies, they believed, formed a chain as witness to God’s providence. The notion of such a prophetic chain was closely connected with that of harmony. Scripture was regarded as a harmonious prophetic entity. Like Thomas Sherlock, they considered this prophetic ‘chain’ to be an irrefutable line of argument against enlightened attacks on the Bible.

Cocceian prophetic theologians published all forms of theoretical expositions, dictionaries, Bible commentaries, and ‘prophetic Keys’. Often they wrote in the vernacular in order to reach the com-

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<sup>12</sup> In his well-known *La Religion des Hollandois* (Cologne, 1673) Jean-Baptiste Stoupe gives an extensive description of Cocceius’ theological notions because, he says, Cocceius has a great number of followers. Voetius and Maresius, former enemies but now joined in a common battle against Cocceius, condemn the latter’s opinions as Socinian, calling him a ‘novateur’ and ‘Scripturarius’ as if it were criminal to value highly Scripture and study it carefully. For Cocceius, see Willem J. van Asselt, *The Federal Theology of Johannes Cocceius (1603-1669)* (Leiden, 2001).

mon people. Over the years prophetic theology came to be viewed as a respectable academic discipline. At one moment there was even a professorship in ‘prophetic theology’ at the Academy of Harderwijk. Cocceianism spread from the Dutch Republic to Western and Central Europe and also across the North Sea to Scotland.<sup>13</sup> Several Dutch prophetic studies were translated into foreign languages, in particular German and Hungarian. Hungarians, studying theology in the Netherlands propagated Cocceian notions in their fatherland where it became an important theological movement.<sup>14</sup>

On the basis of their prophetic study of the Bible, Cocceian theologians concluded that history was to be divided into seven consecutive periods. This idea, and the number seven, were the cornerstones of their interpretation of Scripture and history. The Amsterdam Reformed minister Balthasar Bekker, who distanced himself from the Cocceian prophetic method, but remained very interested in prophecies, declared that from every Dutch pulpit, sermons were to be heard about the seven periods, the beast with the seven heads, the whore of Babylon, and Roman Catholic anti-Christendom.<sup>15</sup> Some even detected the sevenfold division in the Lord’s Prayer—a discovery which occasioned quite a debate in the 1680s. In the well-known satirical novel *Philopater* (part I, 1691) this particular interpretation of the Lord’s prayer is ridiculed. *Philopater* has many pages on Cocceian prophetic theology. Next to Voetianism, Cartesianism, and Spinozism it is one of its major themes. In the second Spinozistic part (1697) *Philopater* has dispensed with all superfluous theological books, with the exception of the most prominent Cocceian publications. He still buys some of those works, not in order to study them but to ridicule their authors. He and his fellow students state that if Christoph Wittich had given them Spinoza’s *Ethica* to read instead of an ‘illustrious Cocceian Key’, he would have been the best professor in the country. But, they confess, at that time their eyes had been so clouded by ‘thick

<sup>13</sup> Works by the prominent Cocceian theologian Salomon van Til were read in Germany, England, and Switzerland. Another influential Cocceian theologian, Nicolaus Görtler, had been inspired by Henry More to compose a prophetic dictionary.

<sup>14</sup> A series of Hungarian synods dealt with Cocceianism. At first Hungarian Cocceians were bitterly attacked by their orthodox brethren, but later on they were tolerated; see Ernestine van der Wall, ‘Dutch Puritanism and Cocceianism in the Early Modern Period’, in: Arnoud Visser (ed.) *In Search of the Republic of Letters. Intellectual Relations between Hungary and The Netherlands (1500–1800)* (Wassenaar, 1999), 37–48.

<sup>15</sup> On Bekker’s interest in prophecies, see Wiep van Bunge, ‘Balthasar Bekker on *Daniel*. An Early Enlightenment Critique of Millenarianism’, in: *History of European Ideas* 21 (1995), 659–673.

prophetic air', their brains so much like 'a storehouse crammed with prophecies', that they would not have been susceptible to Spinozistic notions. In other words, Cocceian prophetic theology was thought to be a hindrance to a favourable reception of Spinozism.<sup>16</sup>

Like Cocceius himself, according to whom Christ and His Kingdom were present in every prophecy, his followers were greatly interested in the Apocalypse, in which the number seven plays such an important role. Having divided Christian history into seven periods, they firmly believed themselves to be living at the end of the sixth period. The seventh would be the great Sabbath for both the Church and the world. They expected a time of glory and happiness for the Church on earth, after the reign of the Antichrist had been destroyed and the Jews and all other peoples had been converted to Christianity. The heavenly Jerusalem was the emblem of this future glorious state of the Church. We should see Cocceian millenarianism in the context of the battle against unbelief and irreligion: the study of the Book of Revelation was thought to provide another effective weapon against atheism.

Who belonged to what Philopater satirically called the 'brethren of the Cocceian prophetic period'? Let me only mention here the names of Franciscus Burman and Herman Witsius at Utrecht, Salomon van Til, Taco van den Honert and his son Joan van den Honert at Leiden,<sup>17</sup> Campegius Vitringa at Franeker,<sup>18</sup> and Frederik van Leenhof at Zwolle. It is noteworthy that prophetic theology was especially popular among liberal and irenic Reformed theologians, many of whom were also indebted to Cartesianism, developing a Cartesian theology which resulted in what has been called a Cartesio-Cocceian

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<sup>16</sup> Johannes Duijkerius, *Het leven van Philopater & Vervolg van 't leven van Philopater*, ed. Gerardine Maréchal (Amsterdam, 1991), 150. See also Israel, *Radical Enlightenment*, 315–320.

<sup>17</sup> All three were fervent prophetic theologians. In 1721 Taco van den Honert delivered an oration on the necessity and eternal value of prophetic theology. His son wrote extensively on the great use of the 'theologia prophetica'.

<sup>18</sup> Campegius Vitringa was an internationally renowned scholar, students coming from France, Scotland, Germany, Hungary and Poland to attend his lectures. He was appointed professor at Utrecht in 1691, but William III was called upon by his antagonists to prevent this appointment, with success. After William's death a second attempt was made by Utrecht University but Vitringa did not accept it. See Ernestine van der Wall, 'Between Grotius and Cocceius: The "theologia prophetica" of Campegius Vitringa (1659–1722)', in: Henk J.M. Nellen and Edwin Rabbie (eds.) *Hugo Grotius Theologian. Essays in Honour of G.H.M. Posthumus Meyjes* (Leiden, 1994), 195–215.

alliance.<sup>19</sup> Some went even further: a Reformed Cocceian minister like Van Leenhof ended up a Spinozist.

So in the early Dutch Enlightenment it was Cocceian prophetic theology that, along with Newtonian apologetics and physico-theology, came to play a formidable role as a major instrument in the apologetic offensive against radical enlightened tendencies. Cocceianism attempted to formulate a Reformed middle-of-the-road theology, on the one hand proclaiming enlightened notions by embracing elements of Cartesianism while on the other with its 'theologia prophetica' taking part in the apologetic project. Cocceianism produced the liberal Reformed theologians of the eighteenth century. Most theologians within the public Church who are looked upon as belonging to the moderate mainstream Enlightenment stemmed from Cocceian circles.

Both key elements of Cocceianism—prophetic theology and Cartesian theology—came under heavy attack from traditional Calvinists. For decades Voetians continued to decry Cartesio-Cocceianism as leading to scepticism and atheism. We find such accusations up until the 1720s. One of the prominent Voetian spokesmen at the time was the Rotterdam minister Jacobus Fruytier who in various renowned publications deplored the influx of novel ideas which damaged true piety.<sup>20</sup> Although polemic debates still went on, they lost much of their fervour. Instrumental in bringing about a rapprochement between the two opposing parties were the so-called 'severe Cocceians' who supported the ideals of the Voetian idea of a Further Reformation. By 1700 some theologians came to blend Puritanism with Cocceianism.

During the course of the eighteenth century, Calvinist traditionalists were joined by liberal Protestants in their ridiculing of prophetic theology. In the light of new developments in the field of Bible criticism this apologetic genre came to be seen as outmoded and, more importantly, as untenable. Cocceian prophetic theology

<sup>19</sup> This alliance continued to be attacked in the early eighteenth century, for example by the Utrecht theologian Melchior Leydekker who in his *De verborgenheit des geloofs* ('The Mystery of Faith', Rotterdam, 1700, 1729) vehemently criticized the fact that due to Cocceius' theology and Descartes' philosophy major mysteries of the faith had been adjusted to novel notions so that they did not longer comply with the old Confession.

<sup>20</sup> See, for example, his *Sions Worstelingen* ('Zion's battles', Rotterdam, 1715) and *Kort vertoog van de waarheit en goddelykheit der Heilige Schriften* (Rotterdam, 1728). For Jacobus Fruytier, see J. Koolen, *Jacobus Fruytier (1659–1731). Een strijdvaardig vertegenwoordiger van de Nadere Reformatie* (Utrecht, 2000).

was overtaken by Grotian views on prophecies. Yet prophetic theology would survive the enlightened assault and continue to be cultivated by conservative believers in the next centuries.

### V. *Learning versus Piety*

Prophetic theology, together with Cartesianism and Spinozism, soon became one of the major issues of polemical debate in the Dutch Republic. This is all the more striking since prophetic theology had such obvious apologetic aims. Yet the Voetians were not willing to appreciate this kind of apologetics: to their mind this learned theological genre led away from piety. In the debate between Cocceian prophetic theologians and Voetian, precisians it was the notion of piety or ‘godliness’ that came to play a central part. Piety was contrasted with learning. Since prophetic theology was regarded by Dutch Puritans or Voetians as closely linked with learned philological studies, they rejected Cocceian ‘*theologia prophetica*’ on the grounds that it merely stimulated vain learning while hindring the promotion of godliness.<sup>21</sup> Cocceian ideas were detrimental to piety, the Voetians claimed, pointing to obvious differences between Voetians and Cocceians with regard to pastoral matters and the role of scientific inquiry.<sup>22</sup> Just like Cartesianism, they said, Cocceianism would lead to atheism. Their new ideas would undermine society, whereas old orthodoxy would preserve both Church and State.

Typically the Voetians were called ‘men of the old study’, ‘old’ theologians or ‘old Reformers’, while Cocceian theologians were regarded as ‘men of the new school’, ‘children of light’. ‘Old’ still stood for anything orthodox, ‘new’ meant heterodox. Among other

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<sup>21</sup> The Voetians feared the effects of Cocceianism on students of theology. The ‘detestable novelties’ had become more popular since its teachers and disciples propagated great learning, wisdom and particular light, despising the old learned orthodox ministers and all those who clung to the old proven orthodoxy as lazy, ignorant and inexperienced men (see the letter of 19 December 1675 by the Classis of Zuid-Beveland to the Curators of Leiden University, asking for a very learned godly orthodox professor of theology who holds to proven truth and rejects the novelties).

<sup>22</sup> See Coenradus Sarcerius, who in 1676, siding with the Voetians, published an interesting pamphlet, entitled *Begravenis der cartesiansche en cocceaense nieuwigheden* (‘The Funeral of Cartesian and Cocceian novelties’). He mentions that Franciscus Burman, in the vein of Abraham Heidanus, ridicules the Voetians’ preaching method and their manner of praying, depicting them as semi-Quakers because of their loud voices and corporeal movements. According to the Cocceians, the Voetians said that a pallid face was an infallible sign of true regeneration.

things, the ‘innovators’ were accused of developing a new language which even theologians of the recent past would not be able to understand. This in itself is an interesting matter: there was a growing awareness that not only traditional ideas were cast aside but that traditional language was suffering a similar fate. A new language was required to formulate new ideas: enlightened notions demanded an enlightened language.

Why was it that traditional Calvinists were afraid of new ideas? For one thing, they feared that the status of the ‘Formularies of Unity’ (the three confessional writings of the dominant Reformed Church) would be affected by Cocceian tendencies. The strict subscription to these Formularies became a burning issue between orthodox and liberal Reformed Protestants in the eighteenth century. Strict adherence to the Dutch States Version (‘Statenvertaling’) and its Annotations (‘Kanttekeningen’) was to become another important point of debate between the men of the ‘old’ and the ‘new’ school. As a result of their philological investigations, Cocceius and his followers suggested alternative meanings for various Bible passages or words, thereby deviating not only from the States Version but also from its Annotations, both of which had acquired an almost divine status. Here new philology and old orthodoxy came to oppose each other—though ‘old’ in this connection should be taken in a relative sense since the States Version and its Annotations date from 1637.

Looking at the polemics between Cocceians and Voetians we get an inkling of the central issues, among which, as I have argued, piety or ‘godliness’ ranked high. In short, the Voetians deplored the Cocceian tendency to attach a lot of value to learning and scholarship while underrating piety. The Cocceians, in their turn, accused the Voetians of ignorance and Puritan precisianism. According to Franciscus Ridderus, a Cocceian theologian had said that the least disciple of Cocceius was more learned in Scripture than any of those ‘old Reformers’. The Voetians also complained that Cocceians deemed the translation of ‘English books’ (that is, Puritan literature) no longer necessary since a Cocceian like Franciscus Burman shed more than enough light.<sup>23</sup>

<sup>23</sup> For Burman, see F.G.M. Broeyer, ‘Franciscus Burman, een coccejaan in voetiaans vaarwater’, in: F.G.M. Broeyer and E.G.E. van der Wall (eds.) *Een richtingenstrijd in de Gereformeerde kerk. Voetianen en coccejanen, 1650–1750* (Zoetermeer, 1994), 104–130 and ‘F. Burman, een collega met verdachte denkbeelden’, in: Aart de Groot and Otto J. de Jong (eds.) *Vier eeuwen theologie in Utrecht. Bijdragen tot de geschiedenis van de theologische faculteit aan de Universiteit Utrecht* (Zoetermeer, 2001), 109–119.



While arrogating learning to themselves, the Cocceians did not, however, relinquish any claims to piety. Van Leenhof—that ‘slave of Cocceius’ as the Voetians called him—and other like-minded theologians, claimed that Cocceius promoted piety more than anyone else.<sup>24</sup> They went so far as to state that prophetic theology was a greater stimulus to piety than Voetianism. However, a staunch Voetian polemicist like Henricus Brink observed a steep decline in those parishes where Cocceians preached. Brink also mentioned that Frederik van Leenhof turned against lengthy English treatises on cases of conscience which to Van Leenhof’s mind only spread anxiety among their readers. Furthermore it was said that Cocceians were against prayers at home as well as against Bible reading in the morning and evening, since such practices might lead to Papism. This ran counter to the ideals of the Voetian Further Reformation which highly stimulated religious rituals at home, the family being looked upon, as I have said above, as ‘a little church’. In the discussion about ‘true’ piety, the notion of Hell also played a part. For example, when Burman suggested another exegesis of Hell, rejecting eternal damnation, this was used by his antagonists to show the moral dangers inherent in Cocceianism.<sup>25</sup>

Obviously prophetic theology was not only considered to be a hindrance to Spinozism, as we saw earlier, but, to the mind of the Voetians, also to ‘true’ piety. The Voetians complained that people were so foolish as to immerse themselves in finding seven periods in

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<sup>24</sup> Van Leenhof tells us that he became one of the most enthusiastic followers of Cocceius on Walcheren (Zeeland), where he had to battle with ‘the Voetian beasts’. In his *J. Cocceji Godtgeleertheit verdedicht en opengelegt* (‘Cocceius’ Theology Defended and Exposed’, Amsterdam, 1673, 5<sup>th</sup> ed. 1684) Van Leenhof drew parallels between the works of Descartes and Cocceius. He started to work on an Index of Cocceius’ *Opera omnia*, which led to a burn-out. It appeared (incomplete) in 1679. In his *Keten der Bijbelsche Godgeleerdheid* (‘Chain of Biblical Theology’, Middelburg, 1678), an exposition of Cocceius’ biblical theology, he explains why he came to the defence of Cocceius, defending the latter’s orthodoxy against accusations of Socinianism and Pelagianism. He highly admired Cocceius’ interpretation of Scripture: nobody has better written about Scripture than Cocceius. Although Van Leenhof was slightly critical of Cocceius’ interpretation of prophecies, he appreciated his prophetic exegesis highly.

<sup>25</sup> With regard to the ‘decline of Hell’, enlightened ideas and pietist notions showed a remarkable affinity. Enlightened authors and Pietists used similar arguments, for example that threats with eternal punishment did not spur people on to behave well. The biblical notion of a ‘restitution of all things’ was rapidly gaining popularity in the decades of the early Enlightenment among Pietists, mystics, Behmenists, and Philadelphians. So here we have an interesting notion which exemplifies the intricate relationship between Enlightenment and Pietism.

every Bible text, thereby forgetting the central role of godliness in their lives. Prophetic rules had brought more bewilderment among the common people than scholastic distinctions—of which the Voetians were so fond—had ever done. Henricus Brink denounced any Cocceian publication about exegetical rules. Moreover, he and other Voetians found it a bad sign that the study of biblical prophecies gave pleasure to students.

Here we encounter one of the core arguments in the debate on prophetic theology: the argument from godliness. The negligence of godliness, with the concomitant idea of the uselessness of prophetic study, is condemned time and again in the polemical literature on Cocceianism. Let me illustrate this by taking a glance at Van Leenhof's notions. Van Leenhof, in the 1670s and 1680s a prominent Cartesio-Cocceian, wrote a popular defence of Cocceian theology in which he attacked some popular prejudices against prophetic theology. He points to the argument of Cocceius' opponents that knowledge is unnecessary for salvation: in their view we would not need to strive for knowledge if we were godly. Van Leenhof, however, argues that any imposed ignorance is sinful. Knowledge, he claims, is the source of true piety. Reason is the eye of the soul through which it is enlightened. Referring to a host of Biblical texts, Van Leenhof emphasizes that the Bible orders people to further their knowledge. Without knowledge we could be either easily seduced to adhere to man instead of the living God—which is a Papist way of dealing with things—, or we could surrender to enthusiasm. In other words, in order to avoid both Papism and enthusiasm man ought to strive for knowledge.<sup>26</sup>

We find in Van Leenhof a strong plea for an independent judgement: one's own knowledge should be the basis of one's opinions. It did not matter to him whether he received light from a Socinian, an Arminian, a Jesuit, Confucius, Descartes, Aristotle or Spinoza: 'Everything which Reason teaches—no matter by whom it is taught—can serve Scripture and the church'. Such observations, supported by a catalogue of names from the past and the present representing heretics and heretical movements as well as non-Christians, were often advanced in the course of the eighteenth century. However, it must have sounded provocative coming from a Reformed minister who claimed to subscribe to the Formularies of Unity.

<sup>26</sup> *J. Cocceji Godtgeleertheyt verdedicht*, ch. 13, 173–213.

For Van Leenhof piety was of crucial importance. However, his notions of true godliness differed from those of his Voetian antagonists. While he was very critical of the evils in church and society, including his fellow ministers, he did advance a wholly different type of piety than that of the Puritans. He allowed dancing, and he would praise worldly joys in general as not being contrary to a virtuous life. Van Leenhof rejected a ‘troubled Christianity full of distress’, he loathed ‘the gloomy man full of chagrin’. His was an optimistic world view, stressing joy instead of sadness. The preaching of gloom, the threats of eternal damnation: these he considered to be mere strategies of a tyrannical clergy in pursuit of power. That is why he suggested to emend the method of preaching. A religion which propagates fear is bound to become the subject of ridicule by libertines, while ‘free minds’ are not affected by it. Van Leenhof pleads for a general, catholic religion, based upon the Apostolic Confession, with only a few essentials of faith.<sup>27</sup> Many of his observations and admonitions and his views on a joyful universal Catholic religion, seem to have sprung from his fierce opposition to Voetian Puritan ideals.

As to the relationship between Church and State, Van Leenhof rejected any theocratic aspirations such as cherished by the Voetians. The magistrate could do more to prevent irreligion than all ministers together. Free minds should be given freedom of speech. Everyone should be his own theologian. In a way Van Leenhof thus anticipated Thomas Paine’s well-known dictum that one’s own mind is one’s own church. Although a member of the clerical elite himself, he gives vent to a kind of anti-clericalism which one would rather expect from an outsider. It is noteworthy that when he turned to Spinozism, he did not disavow his Cocceian past but remained a prophetic theologian. Although he then argued that Scripture belonged to the realm of the imagination, he maintained that prophets had foretold the history of the Christian Church correctly.

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<sup>27</sup> His *Den Hemel op Aarden*: was fiercely criticized by Voetians and Cocceians alike. One of his first critics was Taco Hajo van den Honert, Franciscus Burman joining him. For Van Leenhof and his Spinozism, see Michiel Wielema, *Ketters en Verlichters. De invloed van het spinozisme en wolffianisme op de Verlichting in gereformeerd Nederland* (Amsterdam, 1999), 51–69 and ‘Frederik van Leenhof, een radicale spinozist?’, in: *Mededelingen van de Stichting Jacob Campo Weyerman* 25 (2002), 13–19; Israel, *Radical Enlightenment*, 406–435.

## VI. *Conclusion*

What the Voetian-Cocceian feud on prophetic theology makes abundantly clear is that their fight was not so much about abstract concepts, but about the structure and the mental attitude of Dutch society in the later seventeenth and early eighteenth centuries. The fundamental question was what the ideal Dutch society ought to look like. A key factor in the religio-political context of the early Dutch Enlightenment was the battle about the Voetian ideal of a Puritan society, a society of godly people who did not wish to drink, dance, play cards, visit the theatre, or give themselves over to similar 'devilish abuses'. Their theocratic aspirations for a strictly godly society along Puritan lines met with severe criticism from liberal theologians such as the Cocceians, who accused them of tyranny and of furthering superstition—typical labels used by enlightened thinkers to decry conventional theology. At any rate, it is obvious that the specific historical context is of the utmost importance for understanding the Dutch early Enlightenment polemics.

From a religious point of view, therefore, the basic question of the early Dutch Enlightenment was whether theocratic precisianism or Erastian liberalism should dictate the moral fabric of the Republic. Which kind of piety was preferable? Some considered Puritan Christianity the best safeguard of the State, which would involve the banning of any books that might endanger this foundation of society and the dismissal of any minister who did not promote a strict Puritanism. Others preferred the enlightened alternative: a Christian society of a tolerant nature, guaranteeing the freedom to form one's own judgement; a non-Puritan society, promulgating a liberal religion.

The study of the early Dutch Enlightenment from the angle of Christian apologetics thus leads us to an important theme which, as far as religion is concerned, should not be overlooked: the early Enlightenment and the role of piety in society. That moral religion ought to play a fundamental role with regard to society's stability, was a widely held belief up until the end of the eighteenth century—and in some circles is up until today. This was an ideal that both enlightened and orthodox believers shared, although they radically differed as to the ways in which this ideal should be realized.



**PART 2**

*Philosophy*



ADRIAAN KOERBAGH:  
BIBLICAL CRITICISM AND ENLIGHTENMENT

MICHIEL WIELEMA

I. Koerbagh's Radical Project

Among the principal representatives of the early Dutch Enlightenment, the figure of Adriaan Koerbagh (1632–1669) stands out as one of the most radical thinkers of his age.<sup>1</sup> His ideas not only made him notorious but also brought him personal tragedy. His astonishing frankness in openly denying the divine authority of Scripture, and in criticizing and demolishing the core tenets of Trinitarian Christianity, landed him in jail, costing him his life.<sup>2</sup> He was a fully convinced rationalist who particularly enjoyed putting the powers of critical rationality into the service of the religious and general enlightenment of the people in general. His work was intended to make people think for themselves and not depend upon the dictates of their churches, theologians and pastors.

Surprisingly, however, Koerbagh's work has still not been studied in full detail.<sup>3</sup> This may be partly because his work is still only available in Dutch, and moreover hard to find. But a more important reason may be that Koerbagh is generally regarded as a derivative thinker, in particular as a Spinozist—albeit a curious Spinozist *ante Spinozam*. He may have had access to Spinoza's unpublished work and his writ-

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<sup>1</sup> See, among others, K.O. Meinsma, *Spinoza en zijn kring. Over Hollandsche vrijgeesten* (The Hague, 1896; repr. Utrecht, 1980); P.H. van Moerkerken, *Adriaan Koerbagh 1633–1669. Een strijder voor het vrije denken* (Amsterdam, 1948). Hubert Vandebossche, *Spinozisme en kritiek bij Koerbagh* (Brussels, [1974]) and *Adriaan Koerbagh en Spinoza* (Leiden, 1978); G.H. Jongeneelen, 'La philosophie politique d'Adrien Koerbagh', in: *Cahiers Spinoza* 6 (1991), 247–267.

<sup>2</sup> After a summary trial for apparent blasphemy and for disseminating 'Socinian' opinions among the common people, Adriaan Koerbagh was sentenced, on 25 July 1668, to a 4,000 guilder fine (plus 2,000 guilders costs), ten years' imprisonment in the 'Rasphuis' (gaol) and subsequent banishment from the province of Holland. In prison he soon become ill and died in the 'Willige Rasphuis' (a somewhat milder jail) on 15 October 1669.

<sup>3</sup> *Een Bloemhof van allerley lieflijkheid sonder verdriet* (Amsterdam, 1668); *Een Ligt schijnende in duystere plaatsen, om te verligten de voornaamste saaken der Gods geleertheit en Gods dienst* (Amsterdam, 1668, but never actually published; full edition by H. Vandebossche, Brussels, 1974).



ings are therefore mainly considered relevant because they reflect the growing influence of Spinozistic ideas during the 1660s.<sup>4</sup> As a contemporary and friend of Spinoza, he is quite naturally studied by those who are interested in the biography of Spinoza and the early dissemination of his ideas.

Yet there has been no convincing attempt to trace the exact dependence of Koerbagh on Spinoza's ideas. Most writers stick to generalities or mere assumptions.<sup>5</sup> Even those who have managed to read his works carefully, like Jonathan Israel, have little to contribute to the actual sources of Koerbagh's ideas.<sup>6</sup> This may even be an impossible task, because Koerbagh himself does not refer to any of the writers whom he may have read (except two references to Hobbes' *Leviathan*<sup>7</sup>), and also because hardly anything is known about the extent of Koerbagh's contacts with Spinoza and his group of friends. There were indeed contacts, but trying to pinpoint their importance

<sup>4</sup> Nadler for instance thinks that 'Koerbagh must have closely studied the manuscripts' of Spinoza's *Tractatus theologico-politicus* and *Ethica*, while Israel, more plausibly, points to the *Korte Verhandeling*. Steven Nadler, *Spinoza. A Life* (Cambridge, 1999), 265; Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001), 193.

<sup>5</sup> Hubert Vandenbossche in particular, who has closely studied and also edited Koerbagh's work, tries to establish that Spinoza's monistic metaphysics as developed in part one of the *Ethica*, is the more or less hidden foundation of Koerbagh's views on God and Nature. He has to admit, however, that he cannot obtain this result without extrapolating significantly from the scarce indications that Koerbagh himself provides. Vandenbossche, *Adriaan Koerbagh en Spinoza*, 12.

<sup>6</sup> Israel, *Radical Enlightenment*, 185–196.

<sup>7</sup> Koerbagh, *Ligt*, 282 and 577 (pagination according to the Vandenbossche edition). *Leviathan* had been translated into Dutch (Amsterdam, 1667) by Abraham van Berkel, who was also a close friend of Koerbagh and actively contributed to printing *Ligt*, before the authorities intervened. Jongeneelen, 'La philosophie politique', states that not Spinoza but Hobbes was the most influential source of Koerbagh's work. However, he has not been able to establish more than some superficial similarities between the two authors. They had many common concerns and interests—including, for instance, demonstrating that churches have no independent ecclesiastical power and that Scripture does not support a spiritualistic metaphysics—but Koerbagh does not share the specifics of Hobbes' solutions. They even differ widely in some of their fundamental presuppositions. Koerbagh was certainly no materialist but a mind-body dualist, and whereas Hobbes considered the nature of God incomprehensible, Koerbagh's doctrine of salvation through intellectual union with God, presupposes the exact opposite. What Gueroult said of Spinoza applies to Koerbagh as well: 'Le rationalisme absolu, imposant la totale intelligibilité de Dieu, clef de la totale intelligibilité des choses, est donc pour le spinozisme le premier article de foi. Par lui seulement, l'âme, purgée des multiples "superstitions" dont la notion d'un Dieu incompréhensible est le suprême "asile", accomplit cette union parfaite de Dieu et de l'homme qui conditionne son salut.' Martial Gueroult, *Spinoza. 1. Dieu* (Hildesheim, 1968), 12.

for the formation of Koerbagh's thinking is another matter. We also do not know what books or manuscripts Koerbagh possessed or what role his younger brother Johannes (1634–1671), who was a theologian and also held 'Spinozistic' opinions, may have played in the composition of the Koerbaghian oeuvre. With so many uncertainties concerning the sources of Koerbagh's work, it seems best to concentrate first on the texts themselves. Only a close reading can provide the basis for establishing the provenance of some of Koerbagh's ideas.

Koerbagh's reputation as a radical freethinker is based on his two principal books, *Bloemhof* and *Ligt*. The first came out in February 1668 and was quickly disseminated before being suppressed by the authorities, while *Ligt* remained unpublished. There exist today only two known copies of this work, part of which is in print, while the rest is in manuscript.<sup>8</sup> As far as we now know, the Amsterdam authorities at the time were completely successful in suppressing *Ligt* and even ensuring that its existence would practically remain a secret. Hardly anyone in the seventeenth and eighteenth centuries knew that it had been written.<sup>9</sup> Accordingly, unlike *Bloemhof*, which seems to have been well known in radical circles, *Ligt* probably had no influence on the further development of the Radical Enlightenment.<sup>10</sup>

The two books are strikingly dissimilar in composition. Whereas the first is an alphabetic dictionary of foreign loanwords in the Dutch language, including many terms derived from Scripture, religion and theology, the second is a more systematic critique of the 'superstitions' of Trinitarian Christianity and its biblical foundations. The contents of both works, however, are fully in accordance with one another. The text of many of the entries in *Bloemhof* dealing with theological topics can also be found in the chapters of *Ligt*, in sometimes verbally identical phrases. Some entries in *Bloemhof* have grown into full chapters in *Ligt*. There is no point, therefore, in making a

<sup>8</sup> Both copies are kept in the Museum Meermanno-Westreenianum in The Hague.

<sup>9</sup> A rare reference to *Ligt* (without mention of the title) is in a letter of the Amsterdam Remonstrant theologian Philippus van Limborch to Jean le Clerc of Geneva. After having published his dictionary, writes Van Limborch, Koerbagh 'tractatum alium, in quo opiniones suas adstruere conabatur, praelo commisit: sed is, antequam absolvi potuit, Magistratus auctoritate suppressus est.' Van Limborch gives no indication of having actually seen the unpublished book. Quotation in Meinsma, *Spinoza en zijn kring*, Bijlagen, 14.

<sup>10</sup> *Bloemhof* was even read outside the Netherlands. Echoes of it can be found, for instance, in Matthias Knutzen's atheistic pamphlets. Winfried Schröder, "Spinozam tota armenta in Belgio sequi ducem". The Reception of the Early Dutch Spinozists in Germany', in: Wiep van Bunge and Wim Klever (eds.) *Disguised and Overt Spinozism around 1700* (Leiden, 1996), 157–169, 159 note 7.

distinction of content between Koerbagh's two books, and in the following I shall treat them as one corpus. The only relevant difference perhaps is that while *Bloemhof* is almost wholly destructively critical of current beliefs and dogma's, *Ligt* on the other hand shows something of the philosophical basis that underlies the critique of supernatural religion. Though Koerbagh himself says nothing about the relation between his two books—*Ligt* contains not a single reference to *Bloemhof*—it seems clear that the more organized exposition of *Ligt* naturally developed from the scattered criticisms of *Bloemhof*.

Koerbagh's intellectual career was not meant to end with the publication of these two books. On the very last page of *Ligt*, Koerbagh says that he hopes to publish a second volume, which he had probably already written, or at least conceived. So with *Bloemhof* and the first volume of *Ligt*, we have only a part of this remarkable Koerbaghian project. Had Koerbagh lived to publish both parts of *Ligt*, and perhaps still further works, he might well have gained a reputation as a savage 'atheist' making Spinoza appear a polite and rather harmless savant.

Koerbagh's works are not easy to read. They are not strictly philosophical, they are not very well structured, he gives no sources and leaves many essential things unsaid. Those who enjoy the rigour and clarity of Spinoza's work, may well feel disappointed when reading Koerbagh's somewhat tiresome expositions in a colloquial style. Yet his works are also extraordinarily personal and show to what extent he was sincere in giving voice to his feelings of anger and indignation about intellectual suppression and in expressing his own remarkably radical ideas. Koerbagh scholarship is still far from having tackled all the problems involved in providing a coherent and consistent reading of his work which, while marking a decisive break with supernatural religion, at the same time tries to lay the foundations for a 'rational religion'. The idiosyncracies of his work deserve careful scrutiny and a fuller understanding of them may considerably enrich our knowledge of the Radical Enlightenment in the Dutch Republic.

## II. *Reason versus Superstition and Mystery*

In this paper I shall concentrate on Koerbagh's radical critique of Christianity and the authority of Scripture. One of the aims of this is to show that Koerbagh's ideas show little evidence of having been influenced by Spinoza's still developing views on scriptural interpretation and the separation of philosophy and theology. He did share

with Spinoza, however, an unshakeable confidence in the power of reason to arrive at the truth of things. Reason on its own, without relying on Scripture or someone else's guidance, is fully effective in finding the knowledge that lies at the heart of eternal salvation. Reason is the single reliable guide to the knowledge of God and is the unique arbiter of truth. This is one of the crucial messages that Koerbagh tried to get across to his fellow countrymen.

The source of this rational confidence can be found in Koerbagh's 'theology'. Reason is the true Word of God, and God (or Nature) is the all-encompassing Being of which finite things are but modifications. God consists of infinite attributes, the most important of which are extension and thought.<sup>11</sup> Koerbagh further describes God as simple, unique, eternal, infinite, without beginning, omnipresent, independent, unchanging, omniscient, omnipotent and most perfect.<sup>12</sup> These qualifications, many of which are quite traditional, are given in apparently random order without any attempt at definition or logical deduction. Throughout *Ligt* Koerbagh particularly emphasizes the active and monocausal nature of God as opposed to the passive and dependent nature of all finite modes of being. Without using the word, he portrays God as the *immanent cause* of all his finite modes of being. God reveals himself in all motions and thoughts, which cannot exist without him. God is 'everything in everything', all in all, the essence of all things. Koerbagh's conception of God was in all likelihood inspired by Spinoza. Yet only a few phrases can be regarded as almost verbal reflections of Spinoza's words, while many characteristically Spinozistic notions, such as *causa sui*, are absent.

Throughout *Ligt* Koerbagh speaks of reason as the true, general, eternal, unchanging and infinite Word of God.<sup>13</sup> Scripture, on the other hand, which is usually considered the Word of God, has none of these properties. Insofar as it does contain truth, it is at best only a fragmentary Word of God.<sup>14</sup> Reason is the mind of God and pertains to his essence—Koerbagh here probably equates reason with the divine attribute of thought.<sup>15</sup> Man has always been able to know God by means of his reason, because God has bestowed reason equally on

<sup>11</sup> Koerbagh, *Ligt*, 28, 34. This is a very rare case of Koerbagh reproducing Spinozistic expressions *verbatim*.

<sup>12</sup> *Ibid.*, 27.

<sup>13</sup> In particular *ibid.*, 365–371, 714.

<sup>14</sup> *Ibid.*, 368: 'een stuks gewijs Godswoord, of een deels gewijs Gods woord'.

<sup>15</sup> *Ibid.*, 366.

all peoples on earth.<sup>16</sup> Koerbagh does not explain how finite human reason can reflect or participate in the infinite reason of God. Maybe he understood this in a Spinozistic sense—the human mind being a part of God’s mind.<sup>17</sup> In his book, however, he mainly seems to use expressions that accommodated the views of his orthodox Christian readers, in order to bring about a fundamental change in their conception of the ‘Word of God’. For example, there is a ‘rational and true revelation and appearance of God in our soul and intellect’, and a ‘true and rational oracle by which God speaks to us in our soul and intellect’.<sup>18</sup> Instead of confronting his audience directly with an abstract philosophical framework opposed to their belief system, he uses their conventional religious notions as a vehicle for introducing his own naturalistic views, thereby undermining these same notions. For Koerbagh the ‘Word of God’ is no longer a religious concept but a philosophical one and the way he uses it is intended to confuse his readers in order to prepare them for enlightenment.

In approaching Koerbagh’s critique of theology it seems best to make a distinction between those beliefs that pertain to the theological and dogmatic ‘superstructure’ of the various Christian confessions, and those constituting the very foundation of Christianity, in particular the belief in the divine authority and infallibility of Scripture. Of the different Christian confessions, it is Roman Catholicism that provokes much of Koerbagh’s harshest ridicule and scorn. Many entries in *Bloemhof* are intended to show the absurdity of Roman Catholic practices, ceremonies and beliefs, in particular the doctrine of transubstantiation, which are all far removed from a rational religion. His satirical and indignant remarks on Roman Catholic doctrine, as well as his abhorrence of the persecutive spirit and cruelty of the Roman Catholic clergy, are highly expressive of Koerbagh’s rational and pacifistic temperament. In accordance with Protestant tradition, Koerbagh also accuses Roman Catholics of idolatry, the worship of saints and holy relics. But Koerbagh’s use of the term ‘idolatry’ is at the same time markedly different from its use in mainstream Protestantism, because for him it is also idolatrous to worship a human being as God. Belief in Christ’s divinity is therefore also a case of idolatry, and so Protestantism is equally idolatrous.<sup>19</sup>

<sup>16</sup> *Ibid.*, 28.

<sup>17</sup> Vandenbossche, *Spinozisme en kritiek bij Koerbagh*, 34, attempts to interpret Koerbagh in this way.

<sup>18</sup> Koerbagh, *Ligt*, 517.

<sup>19</sup> *Ibid.*, 156. Cf. Koerbagh, *Bloemhof*, article ‘Idololatrie’: ‘Dog of dat ook geen

In *Ligt* Koerbagh goes to some lengths to undermine belief in the Trinity and therefore also in the divinity of Jesus and the Holy Ghost. Jesus was an outstanding and wise man, as he shows in a long chapter, while 'Holy Ghost' is another way of describing human reason and understanding. In order to see how Koerbagh's rational critique works, it may be worth examining his arguments against the Trinity in more detail.<sup>20</sup>

According to Koerbagh, the Trinity is a self-contradictory concept, if it means that there are three independent beings or substances comprising the one independent being that is God. Theologians prefer to speak of persons instead of substantial beings, but that is no more than using a different name. The only way out of the contradiction is to conceive of the persons or substances in God as less independent and substantial than God himself. But then why are there only three persons or substances in God? God is the absolute, eternal and independent being, the one substance, or rather 'ipstance': the term Koerbagh invents and prefers to denote the full ontological primacy and independence that goes with the name God. 'Substance' is in fact a very confusing term and Koerbagh tries to shed some light on the terminology.<sup>21</sup> Substance, or *hypostasis*, literally means something that 'stands under' something else on which it is dependent. In seventeenth-century Dutch, the Latin 'substantia' is normally translated as 'zelfstandigheid' (being by itself, independent being), but that is incorrect. To be exact, 'substance' should be translated as 'onderstandigheid', a term which denotes ontological dependence. 'Zelfstandigheid', on the other hand, denotes ontological independence. Koerbagh discovered that there was no adequate Latin equivalent for it. So, as he remarks in a footnote, he decided to coin the term 'ipstance' (*ipstantia*, *ipsastantia*) as the Latin equivalent of 'zelfstandigheid'. In Koerbagh's puristic terminology, therefore, 'ipstance' refers to the one absolute and independent Being or God, while 'substance' denotes the infinity of subordinate and dependent beings which are no more than the modifications or modes of being of the one Being.

Let us now return to Koerbagh's critique of the Trinity. It is not difficult to see, given the above, that Koerbagh has no patience

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afgoden dienst of by Godsdienst is, wanneermen benevens den eenigen waaren God, nog een mensch tot een God stelt, en die segt te zijn de eenige troost beyde in leeven en sterven.'

<sup>20</sup> *Ibid.*, 49–104.

<sup>21</sup> *Ibid.*, 58–60.

with any attempt to conceive of the Trinity as something consisting of three distinct 'ipstances', for there is only one. Alternatively, if theologians conceive of the three persons as three subordinate substances, they again find themselves in a blind alley, for subordinate substances cannot be anything else but modes of being, and these are infinite in number, not merely three. So instead of proving a Trinity, they end up proving an infinity. The notion of the Trinity, as conceived by theologians, is therefore utterly irrational. It is the product of a very bad and foolish metaphysics which conflicts with our basic and innate principles and truths. Nevertheless, the Trinity is forced upon believers as a doctrine necessary for salvation, a fact which arouses Koerbagh's fierce indignation.

In refuting the doctrine of the Trinity Koerbagh argues as a fully convinced rationalist.<sup>22</sup> He rejects the traditional appeal of theologians to the distinction between things that are contrary to reason and those that are above reason. The Trinity is clearly contrary to reason, and what is contrary to reason cannot at the same time be an object of faith, because faith presupposes at least some knowledge of those things that are believed. As a rule one should only accept as true and certain those things which one clearly understands.<sup>23</sup> Koerbagh also sometimes uses the familiar Cartesian terms 'clear and distinct', as in the chapter on miracles, to refer to the criterion of rationality.

In deriving his critique of the Trinity from a strictly monistic metaphysics, Koerbagh was probably the first to use a Spinozistic type of ontology, which states that there is only one substantial being (ipstance), to overturn one of the cornerstones of Christian theology. Spinoza himself never considered mounting a frontal attack on the Christian mysteries. Of course, Trinitarianism was also under attack from Socinians, who in Koerbagh's time were highly active in the Republic, particularly in Amsterdam. His own brother Johannes was reported to have frequented their religious meetings, and Adriaan himself has some sympathetic things to say about the purity of their doctrine. He praises them for having abandoned the error of the Trinity together with idolatry and transubstantiation. For that reason Socinianism may even be called the 'restored or purified religion'.<sup>24</sup>

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<sup>22</sup> He also uses a 'mathematical' method to refute a particular version of Trinitarianism: *ibid.*, 64–79.

<sup>23</sup> *Ibid.*, 82: 'dat men niets en moet aanneemen voor waer en seker, dan 't geen men begrijpt en klaar bevat, soo klaar als men begrijpt, dat het geheel grooter is als zijn deel'.

<sup>24</sup> *Ibid.*, 399.

But the great difference is that they rejected Trinitarianism not because it is irrational in itself, but because it is unbiblical: the Trinity is not a scriptural doctrine. Koerbagh, too, argues that Trinitarianism is unscriptural, but for him this is only a subsidiary argument against Christians who are prepared to believe in mysteries as long as they are convinced that they are supported by Scripture. If the Trinity is neither rational nor scriptural, they have no reason left to hold on to a doctrine that moreover is not required for salvation.

### III. *The Obscurity of Scripture*

Let us now turn to Koerbagh's views on Scripture, its authority and interpretation. If reason is the only guide to true knowledge and salvation, if it is the one authentic Word of God, what role can be accorded to Scripture? Does Scripture teach us anything of eternal value, or is it just a collection of outdated books? Koerbagh's remarks on Scripture are scattered throughout *Bloemhof* and *Ligt*. *Ligt* also contains a full chapter on the nature of the Bible.

As is known, Spinoza in his *Tractatus theologico-politicus* denied that the Bible contained any philosophical truth, and claimed that it only teaches very simple things aimed to instill obedience. Its core doctrine, that obedience brings about salvation, is not accessible to rational inquiry, but can be believed only on the authority of revelation. Spinoza claimed to know this from an investigation into the purpose and intention of Scripture, which also shows why Scripture is often written in an obscure style, why it does not contain definitions of things, and why so many occurrences are described as if they were miracles. Spinoza, in short, was able to explain many features of Scripture on the basis of an internal study of its meaning. This allowed him to proclaim that Scripture (theology) and reason (philosophy) have absolutely nothing to do with one another.

There is almost nothing of all this in Koerbagh, whose aim was not to separate theology from philosophy but, on the contrary, to make theology a part of philosophy, which implies that it must be a fully rational science and cannot contain any doctrines that are above reason. Whereas Spinoza can and indeed must allow that theology contains a dogma that is above reason, for Koerbagh this is out of the question:

Everything that is true in philosophy must also be true in theology. For authentic and true theology and all truth in theology is included in



philosophy and is a part of it, because philosophy includes the perfect knowledge of God. And what is the perfect knowledge of God if not theology? So that philosophy includes all truth, wisdom, science and knowledge that exist.<sup>25</sup>

This fundamental difference in outlook may help to explain why Koerbagh felt no need to develop a systematic theory of biblical interpretation. Unlike Spinoza, for example, he shows hardly any interest in a factual or historical study of Scripture. Instead of investigating the authorship and composition of the various books of the Old Testament, Koerbagh simply states that it is not known who their authors were. Every hypothesis is no more than guesswork. He does, however, single out the opinion that it was possibly Esdras (Ezra) who compiled or wrote most of the Old Testament books.<sup>26</sup> It is interesting to speculate on the sources of Koerbagh's knowledge of this hypothesis. It had recently been brought forward by Hobbes in his *Leviathan*, which Koerbagh had read. But he must have known that Spinoza and others as well were inclined to the same opinion, for he presents the Esdras-hypothesis, intriguingly, as the *majority* opinion among leading scholars and theologians. Yet he also says that he is unable to support this hypothesis himself. He does, however, agree with Hobbes, La Peyrère and Spinoza in rejecting the generally accepted view that Moses wrote the Pentateuch. Internal and textual evidence, Koerbagh writes without elaborating, shows that Moses could not have been its author.

So while Koerbagh agrees with some of the negative results of critical Bible scholarship, he hesitates to accept any of the positive results, even if they are only hypothetical. Moreover he sometimes seems to doubt the intelligibility of the Bible as such. Scripture, particularly the Hebrew text, contains many absurd, defective, obscure, ambiguous, metaphorical and metonymical expressions, which could easily lead us to conclude that the book is self-contradictory and gives rise to ridiculous consequences.<sup>27</sup> Koerbagh provides a number of explanations for the obscurity of Scripture. One of the most fundamental concerns is the Hebrew language itself, which Koerbagh at one point calls a deceptive and misleading language, because there seem to be no definite rules regulating the assignment of meanings to words, even those that are derived from the same root word. The Jews just seem to 'play with the meanings and explanations of

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<sup>25</sup> *Ibid.*, 37.

<sup>26</sup> *Ibid.*, 343.

<sup>27</sup> *Ibid.*, 347–348.

words.<sup>28</sup> But even if we can be certain of what the words mean, this does not guarantee a successful interpretation, because many biblical authors wrote very obscurely and clumsily. This was either because they themselves were ignorant—like the narrator of the flood story, who believed the earth to be flat<sup>29</sup>—or because they accommodated themselves to their audience, which consisted mainly of ignorant and servile Jews. The ‘clumsy and strange’ story of the six-day creation is probably the result of such accommodation.<sup>30</sup>

There is also the possibility that many obscurities and ambiguities were *intentionally* introduced by knowledgeable authors to mislead the people and hide the true meaning of the text, like the prophets sometimes did out of fear of the godless crowd. Scripture in that case could be said to have an esoteric (but perfectly rational) message that is only accessible to philosophers who can explain things ‘according to reason and truth’. This seems to be the principle behind some of Koerbagh’s attempts to treat scriptural texts as a kind of proto-philosophy. For example, he translates and explains Genesis 1: 1 in a way that makes it a truthful naturalistic description of the formation of the world according to the laws of motion.<sup>31</sup> This seems to imply that some of the authors of Scripture were philosophers themselves. On the other hand, Scripture also shows that their knowledge of God and of the nature of mind (spirit) was very inadequate. It is difficult to reconcile these two tendencies in Koerbagh’s attitude toward the biblical text. He gives no criterion for distinguishing between texts that are intentionally obscure and those that are obscure simply because of the ignorance of their authors. Whether a text can be explained ‘according to reason and truth’ seems therefore to be just a matter of trying—but Koerbagh was not prepared to try indefinitely.<sup>32</sup>

<sup>28</sup> Koerbagh, *Bloemhof*, article ‘Lof-offer’.

<sup>29</sup> *Ibid.*, article ‘Arke’.

<sup>30</sup> *Ibid.*, article ‘Sabbath’: ‘Dog de schrijver, geloof ik, heeft gedacht, ik schrijf het maar voor een deel domme slaafsche Jooden, die kanmen haast wijsmaaken dat alles waar is, en als het die lang genoeg gelooft hebben, sullen het veel anderen, gelijk het blijkt, ook wel voor waarheyd anneemen.’

<sup>31</sup> *Ibid.*, 34–48.

<sup>32</sup> ‘Dog ik soude het wel kunnen uitleggen, hoedanig het soude mogen geschied zijn (...) maar het behaagt mij niet eens anders versierde, of liever kwaalijk en oneijgentlijke beschreeven dingen na de Reden en waarheid uijt te leggen.’ Koerbagh, *Ligt*, 728, about the story of the miraculous passage of the Red Sea.

IV. *Demystifying Scripture*

As we saw above, Scripture for Koerbagh was pervasively obscure. Yet to despair of the possibility of providing an intelligible reading in at least some cases would have frustrated part of his critical project. Koerbagh wanted to show that there is often a fundamental distinction between what the original authors intended to say, and the ways in which their sayings have been falsely explained by generations of theologians who have used Scripture to serve their own interests. Many absurd metaphysical notions have been introduced into biblical interpretation that have greatly corrupted our comprehension of what Scripture actually says. In this way Scripture has been used as a prop to support a spiritualistic and even magical world view that is best suited to the worldly interests of a select group of people, who have assigned to themselves the indispensable roles of mouth-pieces of God and mediators between God and men. One of the aims of Koerbagh's enlightenment is to demonstrate to his audience of Christian believers that there exists a great gulf between the text of Scripture and its authoritative theological interpretation.

One of the cardinal metaphysical fictions that have been introduced into religion concerns the existence of good and bad spirits: incorporeal entities that are somehow capable of operating in the material world and changing the course of human history, as in the Fall of man. In a number of detailed chapters of *Ligt*, which show his competence in Hebrew and Greek, Koerbagh painstakingly tries to destroy the claim that these spiritualistic fictions are grounded in Scripture itself.<sup>33</sup> Scripture, if read without prejudice and according to the literal meaning of the Hebrew and Greek original, does not support belief in the existence of good and bad spirits (angels and devils) or of heaven and hell as their respective habitations, nor does it suggest that 'magic' arises from a compact between devils and so-called witches and magicians.

Also, the orthodox explanation of the ancient oracles as works of the devil must be ruled out for the same reason. Koerbagh devotes a very fine chapter of *Ligt* to unravelling both the gentile and, even more controversially, the Jewish oracles as frauds. Even Moses was being fraudulent—though for respectable political reasons—when he presented the Ten Commandments to the crowd as an oracle of God, as having been written and handed down by God himself:

<sup>33</sup> Koerbagh, *Ligt*, Chapters 9–15 dealing respectively with heaven, hell, oracles, angels, devils, ghosts or apparitions, and magicians. *Ibid.*, 413–685.

We would rather want to censure and condemn Moses' action and say that Moses should have said honestly: 'You should accept these laws which I have made by divine wisdom and which I know are of great necessity for such a large crowd, accept them as divine and holy and live accordingly.' [The Jews] accepted them as divine laws and commands when Moses presented these to them with this outward spectacle. They would also have accepted them without this outward display, merely because it was necessary to accept them, for without them they would not have been able to keep themselves in a good and stable situation.<sup>34</sup>

Moses was thus responsible for introducing the practice of oracle consultation among the Jews. This is of course a far more radical position than was taken by the later critics of oracle belief such as Charles Blount, Antonie van Dale, Fontenelle and Balthasar Bekker, who only regarded the gentile oracles as frauds. Strangely enough, however, modern scholarship on the oracle debate has so far failed to pay attention to Koerbagh's exceptional views on the subject.<sup>35</sup>

For Koerbagh, philosophy teaches that disembodied spirits do not exist. Scripture nowhere suggests that they exist. The remaining problem, of course, is what Scripture means when it does *appear* to talk of angels, devils, heaven, hell and magicians. The various Hebrew and Greek words that it uses to describe them can mean various things, but an intelligible reading is not possible in all cases. For example, 'angel' literally means 'messenger' and 'devil' means 'slanderer' or 'accuser'. In a number of cases Scripture seems to refer simply to human messengers and slanderers. Koerbagh uses a Cartesian philosophical definition of spirit, according to which a spirit is essentially a thinking being, to maintain that many biblical descriptions of these messengers cannot be applicable to incorporeal spirits, although they could be applicable to human beings consisting of body *and* spirit. Many other descriptions, however, are not even applicable to human beings, and so are either purely fictitious when taken literally or should be explained 'according to reason'. Since Koerbagh prefers to think that Scripture itself contains no fictions,<sup>36</sup> he explores his own rational explanation, which derives from his monistic ontology.

<sup>34</sup> *Ibid.*, 507–508.

<sup>35</sup> The most recent discussion of the debate on oracles is in Israel, *Radical Enlightenment*, 359–374.

<sup>36</sup> Koerbagh, *Ligt*: 567 'En so ist gelegen met de gantsche h. schrift, datse met wijsheid na de reden moet uijtgelegt worden; als men dat deed men behoefde tot geen ongerijmtheit te vervallen.'

In Koerbagh's monistic model, according to which God is the essence of all his modes of being, it would be philosophically correct to say that God acts through and in all things. Only God is absolutely independent, all finite things depend entirely on his action. This relationship could be expressed figuratively by saying that all things, both bodies and thoughts, are God's messengers, which are 'sent' by God to cause some specific effect. This is indeed the language that Scripture uses, for example, in describing the killing of 185,000 soldiers in the army of Sanherib by 'an Angel of the Lord'. If we follow the theologians' explanation, this so-called angel, Koerbagh quips, must indeed have been a 'mightily strong thought or spirit.'<sup>37</sup> But no supernatural event is involved. A similar effect could have been produced by describing, for example, a scene from the recent Anglo-Dutch war. Imagine Dutch warships courageously pursuing the retreating English fleet in order to destroy it once and for all. Then suddenly God, merciful to the English, sends an angel or messenger into the Dutch fleet and strikes all of the crew with temporary blindness, allowing the English a safe escape. If reported in this absurd way, hardly anyone could have guessed that all that had happened was that something like a dense *fog* had prevented the Dutch from continuing their pursuit. Scripture is full of such stories which, albeit with difficulty, can all be explained in a natural and rational way.<sup>38</sup> There is no need to imagine anything supernatural or miraculous in them, as theologians and the ignorant suppose.

According to Spinoza, it was a typically Jewish custom to depict events as direct actions of God, without mentioning their proximate and particular causes. Koerbagh considered this a 'strange, obscure and improper' way of speaking, which could easily falsely suggest that God was constantly making miracles happen: 'So it is much better to reject such fictions and improper ways of speaking, or at least to provide a rational explanation for them, as is quite possible.'<sup>39</sup> Therefore, the obscure religious jargon of God's messengers and his help, his Word and oracles, his works and miracles, is generally to be avoided. Yet as Koerbagh's own practice indicates, it can nevertheless be regarded as pseudo-philosophical language, not completely devoid of meaning. It is a way of signifying the absolute ontological and causal primacy of God as opposed to the absolute dependence and determination of all finite modes of being. Finite beings derive all

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<sup>37</sup> *Ibid.*, 566.

<sup>38</sup> *Ibid.*, 567.

<sup>39</sup> *Ibid.*, 567.

of their power from God, so in a sense they continuously depend on God's help to act and maintain their existence. Since human salvation particularly depends on wisdom and moderation of the passions, it is not inappropriate to call them 'angels'—they are the 'good spirits that God directs as his messengers for the good of man'—as long as it is understood that spirits do not exist as separate entities.<sup>40</sup>

### V. *The Politics of Translation*

Besides the obscurities of the biblical text and the metaphysical fictions that have been introduced into theology, there is yet another obstacle to a demystified reading of Scripture. Particularly for those who do not read the original languages, an inadequate *translation* may contribute to the perpetuation of the theologians' monopolized and false interpretation of the Word of God. This is the background to Koerbagh's strongly expressed criticism of the official Dutch Bible translation, the *Statenvertaling*, as well as of the translation practice of theologians in general.

*Bloemhof* is our main source for Koerbagh's views on the unfortunate consequences of non- and pseudo-translation. He discusses a great number of words which are either not translated into Dutch at all (mainly Hebrew words) or which have only been pseudo-translated by introducing bastardized words which only *look* Dutch but are essentially Greek or Latin. Two of the most frequently cited examples are angel and devil, which derive from Greek *angelos* and *diabolos* meaning respectively, as we saw, 'messenger' and 'slanderer' or 'accuser'. By using bastardized words like angel and devil instead of the regular Dutch equivalents of these Greek words, theologians deliberately obscure the original and unproblematic meaning of these words in order to uphold an obtuse metaphysical explanation of Scripture. No Dutchman would ever have dreamed of the existence of good and bad spirits if words like 'angelos' and 'diabolos' and their Hebrew equivalents had been translated literally. Pseudo-translation is one of the most important vehicles for the maintaining of a corrupt interpretation of Scripture, a magical theology, a point Hobbes also makes. Koerbagh treats this matter with the utmost seriousness, because it serves to sustain the religious ignorance of the common people.<sup>41</sup>

<sup>40</sup> *Ibid.*, 574–575.

<sup>41</sup> *Ibid.*, 629–630: 'welk woord DUIJVELEN (...) men mede in de h. schrift al

In what ways does non- or pseudo-translation affect our understanding of Scripture? The main point is that it may cause us to believe in many things that do not really exist. Koerbagh's observations on the subject can be summarized as follows. Firstly, non-translation may falsely make us believe in the existence of certain individuals, like Adam, which is not really a proper name, or the Antichrist, which seems to refer to a particular individual. Secondly, non- or pseudo-translation may lure us into thinking that there are certain well-defined species of beings, such as angels and devils, that are mentioned throughout Scripture in a consistent and recognizable way. In reality, however, Scripture uses some eight different words to refer to these alleged angels, and equally eight different words to refer to the alleged devils, and many of these words mean completely different things. In the chapters of *Ligt* on angels and devils, all these words are closely studied and it is shown that none of them supports the usual theological explanation.

Thirdly, we may falsely believe in the existence of a certain definite place, such as Hell, although in Scripture there are four different words apparently all referring to different locations. Although in this case *hel* is a proper Dutch word, the confusion arises from using it indiscriminately to refer to places that according to Scripture are clearly distinct.

Fourthly, pseudo-translation may hide from view the fundamental obscurity of the original text, as in 'Pascha' and 'Pinxster', which, when translated literally, would hardly make any sense within the context in which they appear. However, says Koerbagh, if the original text is obscure and crippled, so be it. The author apparently did not know any better. The translation is not meant to improve upon the original but should be faithful, and so in this case it should be as obscure and crippled as the original.

Finally, and more generally, non-translation may also simply be intended to keep the bulk of the people in ignorance about the true meaning of words. This applies, for example, to the names of the five books of the Pentateuch and the Book of Psalms, and to expressions like 'Amen' and 'Hallelujah'. There is absolutely no reason why these words should not be replaced by good Dutch equivalents.<sup>42</sup>

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onovergeset laat staan, om dat de gemeene menschen het selve niet verstaan souden en oversulks de eijge betekenis niet te weeten komen.'

<sup>42</sup> This even applies to some of the Hebrew proper names, like Jesus and Joshua, which according to Koerbagh derive from a root word meaning to preserve, keep or save. When writing of Jesus Koerbagh therefore prefers to use the Dutch name

VI. *Koerbagh's Enlightenment*

We may now well understand why Koerbagh's views were regarded as highly blasphemous by many contemporaries. His views imply that Scripture is not a supernatural revelation nor has it any special status as the unique Word of God. Although he thought that it contained some laws and commandments that were fully in accordance with reason, strictly speaking his views render Scripture superfluous. If the authority of Scripture were not maintained by sheer violence, it would soon go to ruin.<sup>43</sup> The only reason why he paid so much attention to it is because it was universally considered to be a holy book, a founding text of existing hierarchies of (clerical) power; it was also regularly used to curb the freedom of thought and philosophy. In order to secure intellectual and other freedoms, therefore, one should begin by giving people a new perspective on this founding text and by making clear that it should be read with caution and never without critical reason.

Does this also mean that Koerbagh was something of a revolutionary, intent on overthrowing existing structures of power? It is clear that he was a strong advocate of policies aimed at curbing *ecclesiastical* power and guaranteeing more personal and social freedoms. People should be able to visit the theatre, dance, wear their hair long, and even enjoy sexual freedoms without being harrassed by pastors telling them they are committing sins followed by excommunication from the religious community. As the chapter on Good and Evil in *Ligt* makes abundantly clear, no action that harms no one can be considered bad. Everyone has the right, so to speak, to choose his own lifestyle 'within reason'.<sup>44</sup>

Concerning political power, on the other hand, Koerbagh fully upholds the rights of the existing Dutch civil governments, the prov-

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'Behouder' (Saviour): *Bloemhof*, article 'Jesus' and *Ligt*, 105 and *passim*.

<sup>43</sup> 'Dog daar is in de Schrift iets 't geen vast is en met de rede over-een-komt, 't welk ook by my maar alleen voor de schrift gehouden word, 't welk wederom, in 't maaken van andere schriften, soude stant grijpen: Maar de rest is voor ons onnut en idel, en kan over sulks sonder swaargheyd wel verworpen worden. En ten waar de Schrift door geweld, van vuur en swaard, staande gehouden wierd, sy soude in 't kort vervallen.' Koerbagh, *Bloemhof*, article 'Bibel'. These are surely some of the most damaging observations about Scripture ever put into print before the general onslaught on Christianity which began during the French High Enlightenment.

<sup>44</sup> Yet Koerbagh was certainly no hedonist. He advocated the 'restraining of all immoderate desires, or, to be more precise, humility, contentment and moderation in all sorts of sensual pleasure.' Koerbagh, *Ligt*, 574.



incial and town magistrates, to rule and make laws, since their sovereignty is derived democratically from the ‘common consent and approval’ of the people.<sup>45</sup> (Koerbagh does not use the word ‘contract’ or ‘compact’ but the idea is much the same.) Government rule cannot be arbitrary, since even sovereigns are bound by the ‘innate laws of reason’ and all their laws must be in accordance with reason.<sup>46</sup> Koerbagh does not hesitate to point out that sovereigns do indeed sometimes act against the rights and privileges of the people they are obliged to protect.<sup>47</sup> But much more often he stresses the rights of the civil sovereign against the supposed rights of the clergy and the organized churches.

It is in this context of the *jus circa sacra* that we find some of the most remarkable ideas contained in *Ligt*. They involve not only Koerbagh’s ideas, but also his own position as a writer and intellectual, and may serve to illuminate the practical and political dimension of his radical secularizing ideas. First there is the idea of the philosophical and scientific education of the civil authorities. Since according to Koerbagh the civil sovereign is not only authorized to make civil laws, but also ecclesiastical and spiritual laws,<sup>48</sup> he should have the professional knowledge that both sorts of legislation require. Therefore, magistrates should not only be competent politicians, but excellent theologians and philosophers as well. They should certainly surpass the philosophical competence of the pastors.<sup>49</sup> Civil rulers who are ignorant in these matters have no idea what their rights and powers are and are therefore an easy prey to the powerhungry ecclesiastics who make them believe that the spiritual or religious realm is beyond their jurisdiction. But in fact, there is no spiritual or supernatural realm to which only a clerical elite has access. The civil sovereign, one may suppose, should therefore be empowered with knowledge of the fundamental identity of God and Nature, he should understand that miracles are impossible and that everything occurs according to immutable natural laws. All civil sovereigns should become monistic philosophers—or Koerbaghians!

<sup>45</sup> *Ibid.*, 307: ‘met gemeene stemmen en goet vinden’.

<sup>46</sup> Koerbagh, *Bloemhof*, article ‘Souveraine regeerders’.

<sup>47</sup> *Ibid.*, article ‘Crime lesae majesteyt [sic]’.

<sup>48</sup> Koerbagh, *Ligt*, 538: ‘geestelijke wetten’.

<sup>49</sup> *Ibid.*, 538–539: ‘Onder de wetten die tot ruste des volks en welstands des lands behooren sijn ook begreepen de geestelijke wetten: oversulks behoorden de land overheden niet alleen ervaaren te sijn in staats saaken, maar ook in de waare Godsgeleertheit, en in de waerelds wijsheijd behoorden sij uijstekende te sijn, selfs boven de leraars.’

Radical ideas are therefore not to be restricted to the people, they are to be particularly propagated among the people's sovereign representatives. Rather than going underground, the Radical Enlightenment should be an issue of official government policy. One could perhaps object that Koerbagh is merely repeating the Platonic stereotype of the philosopher-statesman. However, Koerbagh is not saying that philosophers should rule the world, but that professional statesmen should become skilled in rational monistic thinking. Since the civil sovereign represents all the people, his great knowledge and wisdom will ensure that no group has special powers or privileges and that all men are equally free to exercise their reason in the pursuit of truth and salvation.

But what about Koerbagh himself? How does he personally fit into this scheme of Enlightenment? We can at least give a fragmentary answer, because his book contains a number of intriguing passages that seem to suggest that he may have had a definite role in mind for himself. In one place, for example, he says that 'if the authorities were to approve and consider valuable the things I would do', he would know the means to make peace among the warring sects and establish a peaceful religion.<sup>50</sup> So here we apparently have Koerbagh believing he can single-handedly bring religious strife to an end, fulfilling the prophecy of Revelations (21: 1)—to which he refers—concerning the New Heaven and the New Earth. One may think this sounds like the ravings of a religious fanatic, a new Messiah. But as soon as we realize that his writings, by naturalizing and 'normalizing' Scripture, lay the groundwork for the abolishment of sectarianism, and that the rational religion (as far as I understand it) implies no more than loving God by obeying the sovereign and treating one another with love and respect, it seems that the only thing still missing from the picture is government protection of Koerbagh and his work—which he may have expected.<sup>51</sup> With government backing, Koerbagh as a

<sup>50</sup> *Ibid.*, 334–335: 'Altoos ingeval de overheden beliefdén voor goed te keuren en van waarde te houden, 't geen ik in 't werk soude stellen, en daar toe ook vereijst word: sou wel raad weten, datter vrede en eenigheid, en een Godsdienst, welke geen geweld wapenen van nooden had om staande gehouden te worden, onder alle of de meeste verscheelende en twistende Godsdiensten en gesintheden kwam. En dat behoorde te geschieden, op datter eens een Nieuwen hemel en nieuwe aarde, na de voorsegging van Johannes, in welcke regt en gerechtigheid woonde, mogt komen.'

<sup>51</sup> In 1668 at least two Amsterdam magistrates could in principle be expected to be sympathetic to Koerbagh: Lucas Reijnst, who had been the guardian of the Koerbagh children after their father had died and who must have developed an intimate bond with them, and Johannes Hudde, who had personally exchanged letters with Spinoza in 1666 and must have been in a good position to assess the intentions of

writer would of course have been in a strong position to propagate his views.<sup>52</sup> He may also have expected to become something like a philosophical tutor to the government, or perhaps a government advisor on religious policy—advising, for instance, that governments should make all religious meetings public and that they should keep a tight control over what is being preached. There is also the astounding and somewhat bizarre idea of writing a new and improved Bible, containing better laws and a clearer description of the one true religion than the ancient Jews were able to provide. ‘If it pleases the government,’ says Koerbagh, someone could easily write a Bible that is far superior to the existing one—this almost sounds like a job application.<sup>53</sup> Again he looks for government approval and support, probably because (as in Hobbes) only the sovereign has the power to make Scripture law. There is also Koerbagh’s oral confession, made during his trial, that he had planned to send his book *Ligt* to the Amsterdam authorities before publication and only release it after their approval—all of which indicates that Koerbagh, naïvely, had great expectations of cooperating with the authorities in the promotion of Enlightenment.

Ironically, perhaps, it was his own harsh fate that made radical authors think twice about seeking any form of official approval of their work. With the condemnation of Koerbagh, and the subsequent banning of Spinoza’s work, the Radical Enlightenment was forced underground, into a position of subversion that was greatly at odds with Koerbagh’s own intentions.<sup>54</sup>

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Koerbagh’s work. As it turned out, however, neither of them was able or willing to put in a good word for him. Reijnt apparently was deliberately kept from becoming too involved in the whole legal affair.

<sup>52</sup> An appeal to those in power was of course a natural move to make. Spinoza, too, seems ‘to have actively courted protection from some powerful members of the regent class’ (Nadler, *Spinoza*, 286), including the Grand Pensionary Johan de Witt, the Rotterdam regent Adriaan Paets and also, interestingly, Johannes Hudde.

<sup>53</sup> Koerbagh, *Ligt*, 351–352: ‘Vraagd imant waarom dan die boeken, daar soo veel duistere dingen in sijn, dies tijds sijn angenomen. Die sij tot antwoord, datter dies tijds, (als wij gesegt hebben) geen beter boeken te vinden waren die een eenige waare Godsdienst beschreeven: maar datter nu geen beter en klaarder soude kunnen bedagt en beschreven worden, dat soude te veel gesegt en Gods magt bepaelt sijn: dat sou ik niet durven seggen; want men soude, als het de overheijd liefdede, wel beeter kunnen maaken daar in meer klaare, kragtige en bondige wetten souden sijn. Vraaght imant waarom dan so lang gewagt en gehouden sonder te verbeteren? Omdatter nimant opstaat die het durft ondernemen, en omdatter nimant op gestaan is die het heeft onderneemen durven.’

<sup>54</sup> The author is preparing a new, fully annotated edition of *Ligt*, which will also include relevant texts from *Bloemhof*.

‘OUTSIDE GOD, THERE IS NOTHING’:  
SWAMMERDAM, SPINOZA, AND THE JANUS-FACE OF  
THE EARLY DUTCH ENLIGHTENMENT

ERIC JORINK

I. Introduction

On 12 August 1675, the French *érudit* Henri Justel wrote to Henri Oldenburg, the secretary of the Royal Society, that Jan Swammerdam ‘est tout a fait dans la devotion’.<sup>1</sup> The rumour proved right. Oldenburg’s Dutch correspondent and the author of the pioneering *Historia generalis insectorum* (1669) had just abandoned his microscopic research, destroyed some of his manuscripts, and decided to follow what he now considered his real vocation, the worship of God.<sup>2</sup>

In the summer of 1675, Swammerdam had left Amsterdam for Schleswig-Holstein to become a member of the spiritual community run by the mystical prophetess Antoinette Bourignon. As a farewell to the material world, Swammerdam published his treatise on the mayfly, the *Ephemeris vita*.<sup>3</sup> ‘Ce livre la est plein de speculations metaphysiques et Theologiques’, an annoyed Justel remarked to Oldenburg, ‘ce qui ennuye ceux qui n’ont pour but que de connoitre la Nature’.<sup>4</sup> Indeed, only a fraction of the work is devoted to the mayfly’s delicate anatomy. The treatise mainly consists of pious meditations on the idleness, even sinfulness of science in general and Swammer-

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<sup>1</sup> Justel to Oldenburg, 12 August 1675, *The Correspondence of Henry Oldenburg* (London, 1967–1985) [CHO], XI, 453.

<sup>2</sup> All accounts of Swammerdam’s life are based on the not entirely reliable ‘Vita auctoris/Het leven van de schrijver’ by H. Boerhaave, in: J. Swammerdam, *Bybel der Natuure of historie der insecten/Biblia naturae; sive historia insectorum* (Leiden, 1737–1738). See for example: R. Sinia, *Jan Swammerdam in de lijst van zijn tijd* (Leiden, 1878); Annie Romein-Verschoor, ‘Jan Swammerdam, martelaar der wetenschap’, in: Jan and Annie Romein-Verschoor, *Erflaters van onze beschaving*, 4 vols. (The Hague, 1938–1939), III, 7–34; A. Schierbeek, *Jan Swammerdam (12 February 1637 – 17 February 1680). His Life and Works* (Amsterdam, 1967). New sources are mentioned in: J. Nordström, ‘Swammerdamiana. Excerpts of the Travel Journal of Olaus Borrichius and Two Letters from Swammerdam to Thevenot’, in: *Lychnos* 9 (1954), 21–65. I am currently working on a new biography of Swammerdam.

<sup>3</sup> J. Swammerdam, *Ephemeris vita of afbeeldingh van ’s Menschen Leven, vertoont in de Wonderbaarelijcke en nooyt gehoorde Historie van het vliegent ende een-dagh-levent Haft of Oever-aas* (Amsterdam, 1675).

<sup>4</sup> See note 1.

dam's own research in particular. Swammerdam's discoveries had initially brought him closer to God, he wrote, but now he feared his pursuits were bordering on the idolatrous. He decided to turn away from the 'fruit of the forbidden tree of science', and solely worship the Lord.<sup>5</sup>

A few weeks after Oldenburg learned that Swammerdam was lost to the scientific community, more news from Holland arrived. Again, it concerned matters of reason and faith. This time it was a letter from Benedictus Spinoza, who informed his friend that the editorial preparations for the new work 'about which I wrote to you' were delayed: 'While I was busy with this, a rumour was spread everywhere that some book of mine about God was in the press, and that in it I tried to show that there is no God (...) When I understood this from certain trustworthy men, I decided to postpone the edition I was preparing until I saw how things would turn out'.<sup>6</sup> As is well known, Spinoza would never see this work, the *Ethica*, in print. Two years later, in 1677, the philosopher died. The *Ethica* was to form the most offensive part of Spinoza's generally abhorred *Opera posthuma* (1677).<sup>7</sup> The book was almost immediately banned by the States General and subsequently acquired enduring fame as one of the most heretical works ever published.<sup>8</sup>

In learned circles both Swammerdam's religious zeal and Spinoza's alleged atheism did not pass unnoticed, as is illustrated not only by Oldenburg's correspondence, but also by other sources.<sup>9</sup> At first

<sup>5</sup> Swammerdam, *Ephemeris vita*, 245.

<sup>6</sup> Spinoza to Oldenburg, September/October 1675, *CHO*, XI, 482.

<sup>7</sup> Fokke Akkerman, *Studies in the Posthumous Works of Spinoza. On Style, Earliest Translations and Reception, Earliest and Modern Edition of Some Texts* (Groningen, 1980); Piet Steenbakkers, *Spinoza's Ethica from Manuscript to Print. Studies on Text, Form and Related Topics* (Assen, 1994).

<sup>8</sup> Jonathan Israel, 'The Banning of Spinoza's Works in the Dutch Republic (1670–1678)', in: Wiep van Bunge and Wim Klever (eds.) *Disguised and Overt Spinozism around 1700* (Leiden, 1996), 3–14. Cf. Ingrid Weekhout, *Boekencensuur in de Noordelijke Nederlanden. De vrijheid van drukpers in de zeventiende eeuw* (The Hague, 1998), 105–106, who seems not to be aware of the fact that the *Ethica* was part of the *Opera posthuma*.

<sup>9</sup> A good example is G.W. Leibniz, who not only was fascinated by Spinoza, but followed Swammerdam's career as well. See for instance his note 'Über ein Gespräch mit Tschirnhaus, 1 Oktober 1675': 'Dn. Tschirnhaus mihi dixit, Dn Schwammerdam esse nunc infectum Quakerismo; vendere suas raritates. Ejus librum de Hemerobiis [*Ephemeris vita*] esse plenum speculationibus miris. Stenon scripsit ad Spinosam, ut ei persuaderet Religionem Romanam'. G.W. Leibniz, *Sämtliche Schriften und Briefe. Sechste Reihe* (Berlin, 1989), III, 380–381. According to K. Müller and G. Krönert (eds.) *Leben und Werk von Gottfried Wilhelm Leibniz. Eine Chronik* (Frankfurt a.M.,

sight, the two outstanding Dutchmen had very little in common and, as a consequence, their relationship (philosophical or personal) has never been studied. They were contemporaries: Spinoza was born in 1632 and died in 1677, Swammerdam lived from 1637 to 1680. During their lifetimes, their fame (or notoriety) rested mainly on a single, epoch-making book: Swammerdam's *Historia generalis insectorum, ofte algemeene verhandeling van de bloedeloose diertkens* appeared in November 1669, and Spinoza's anonymous *Tractatus theologico-politicus* only a few months later. After the authors' deaths, much was added to their fame by their posthumous works, Spinoza's *Opera posthuma* (1677) and Swammerdam's bilingual *Biblia naturae/Bybel der natuure* (1737–1738).

But their reputations differed widely. Spinoza very soon became the archetypical atheist.<sup>10</sup> By contrast, in the eyes of contemporaries and later historians, Swammerdam was a deeply religious, although sometimes erratic scientist.<sup>11</sup> In 1676, he returned from Bourignon's sect and, being mentally more stable, resumed his research in Amsterdam. In the last four years of his life, Swammerdam completed the manuscript of his pioneering microscopic study on the anatomy of insects, the *Bybel der natuure*. Still famous is his account of a dissection of a louse: 'Herewith I offer you the Omnipotent Finger of God in the anatomy of a louse: wherein you will find miracles heaped on miracles and will see the wisdom of God clearly manifested in a minute point'.<sup>12</sup>

Swammerdam's discovery of the intestines of insects contributed enormously to eighteenth-century physico-theology.<sup>13</sup> God's grand design became visible in the whole of Nature—in the celestial mechanics of the solar system, the variation of the seasons, the geometry

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1969), p.46, Leibniz met both Swammerdam and Spinoza in person, when he visited Amsterdam in November 1676.

<sup>10</sup> See, for example: J. Freudental, *Die Lebensgeschichte Spinoza's in Quellenschriften, Urkunden und nichtamtliche Nachrichten* (Leipzig, 1899); Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001).

<sup>11</sup> See note 2.

<sup>12</sup> Swammerdam to Thévenot, april 1678, G.A. Lindeboom, *The Letters of Jan Swammerdam to Melchisédec Thévenot* (Amsterdam, 1975) [LJS], 104; Swammerdam, *Bybel*, 67.

<sup>13</sup> See, for example, F.C. Lesser, *Théologie des insectes, ou démonstration des perfections de Dieu ... avec des remarques de Mr. P. Lyonnet* (The Hague, 1742), 37, where Lyonnet comments on Swammerdam: 'Sa dextérité a dissequer les plus petits animaux surpasse l'imagination & lient du prodige. Sa *Bible de la Nature* est sur ce point un chef d'oeuvre que sera toujours admiré.'

of snowflakes or the anatomy of the human eye—but nowhere more striking than in the world of insects. As Daston and Park wrote recently:

Late-seventeenth- and early-eighteenth-century entomology was particularly rich in such natural theological expressions of wonder at the ordinary. The Dutch naturalist Jan Swammerdam, for example, thought the humble ant deserved as much admiration as God's largest and gaudiest creations, on account of 'its care and diligence, its marvellous force, its unsurpassed zeal, and extraordinary and inconceivable love for its young'.<sup>14</sup>

In other words, one of the main themes of the Enlightenment originated with Swammerdam. On every page of his work, Swammerdam declares war on the atheists who deny the omnipotence of the Creator. This new and rather aggressive use of the 'argument from design', which characterizes Swammerdam's *Historia* and later works, is also a notable feature of the work of authors such as Ray, Derham and Nieuwentijt.<sup>15</sup>

Of course, the main target of these physico-theologists was Spinoza. In his immensely successful *Regt gebruik der wereltbeschouwingen* (1715), Nieuwentijt warned the readers not to regard Spinoza as a 'sensible reasoner' ('verstandig redeneerder') but as an 'ungodly person' ('ongodist') whose only mission was to propagate atheism.<sup>16</sup> By the early 1660s Spinoza already had the reputation of being an atheist. The Danish professor and traveller Ole Borch noted in May 1661 that 'there are some atheist in Amsterdam (...) among them a certain impudent atheist Jew'.<sup>17</sup> Without any doubt, this is a reference to Spinoza. While working on what was to become the *Ethica*, in

<sup>14</sup> Loraine Daston and Katharine Park, *Wonders and the Order of Nature, 1150–1750* (New York, 1998), 323.

<sup>15</sup> J. Bots, *Tussen Descartes en Darwin. Geloof en natuurwetenschap in de achttiende eeuw in Nederland* (Assen, 1972); Sara Stebbins, *Maxima in Minimis. Zum Empirie- und Autoritätsverständnis in der physiko-theologischen Literatur der Frühaufklärung* (Frankfurt a.M., 1980); N.C. Gillespie, 'Natural History, Natural Theology and Social Order: John Ray and the "Newtonian ideology"', in: *Journal for the History of Biology* 20 (1987), 1–49; Rienk H. Vermij, *Secularisering en natuurwetenschap in de zeventiende en achttiende eeuw: Bernard Nieuwentijt* (Amsterdam, 1991); Sarah Hutton, 'Science, Philosophy, and Atheism: Edward Stillingfleet's Defence of Religion', in: Richard H. Popkin and Arjo Vanderjagt (eds.) *Scepticism and Irreligion in the Seventeenth and Eighteenth Centuries* (Leiden, 1993), 102–120; Israel, *Radical Enlightenment*, 456–463.

<sup>16</sup> B. Nieuwentijt, *Het regt gebruik der wereltbeschouwingen* (Amsterdam, 1715), 6.

<sup>17</sup> H.D. Schepelern (ed.) *Olai Borrichii Itinerarium 1660–1665* (Copenhagen-London, 1983) [*OBI*], I, 128; Wim Klever, 'Spinoza and Van den Enden in Borch's Diary in 1661 and 1662', in: *Studia Spinozana* 5 (1989), 311–325.

which Spinoza demonstrated *ordine geometrico* his ideas on God and Nature amongst other matters, rumours concerning his godless ideas continued to spread.<sup>18</sup> These suspicions flared up with the publication of the *Tractatus* in 1670. 'Liber pestilentissimus' was one of the friendlier qualifications of the book.<sup>19</sup> By 1678 Spinoza was dead and the *Opera posthuma* had been published. After ample deliberations, the book was banned by the States of Holland, as containing 'very many profane, blasphemous, and atheistic propositions'.<sup>20</sup>

The immediate impact of this work can best be measured from local responses. For example, the Leiden Reformed consistory noted on 4 February 1678 that this book 'perhaps since the beginning of the world until the present day (...) surpasses all others in godlessness and (...) endeavours to do away with all religion and set godlessness on the throne'.<sup>21</sup> Leiden city council and the curators of the university decided that, since the *Opera* paved the way for 'an absolute *atheism*', the book was to be banned immediately, all copies sold were to be confiscated, burned and the owners fined.<sup>22</sup>

In view of this, it is rather surprising to find that Swammerdam wrote in a letter of 30 March 1678 to his French friend and patron Melchisédec Thévenot, that he just had received 'the last book of Spinoza' from a Leiden friend.<sup>23</sup> Was Thevenot interested? The French savant was, and Swammerdam promptly forwarded him 'les oeuvres posthumes', adding that they cost 5 francs.<sup>24</sup> It is inconceivable that the pious Swammerdam should not have been aware of the kind of book he was dealing with. At first sight, there is an enormous chasm between Swammerdam's and Spinoza's ideas on God and Nature. But if they are examined more closely, some remarkable similarities between the works of the two Dutchmen come to light. Compare, for example, the following two quotations:

1. The more we understand singular things, the more we understand God.
2. ... but in what else is HE knowable, other than in his own works?

<sup>18</sup> Wim Klever, 'Spinoza's Fame in 1667', in: *Studia Spinozana* 5 (1989), 359–364.

<sup>19</sup> Graevius to Leibniz, 22 April 1671, G.W. Leibniz, *Sämtliche Schriften und Briefe*. Erste Reihe (Darmstadt, 1923), I, 142.

<sup>20</sup> Israel, 'The Banning of Spinoza's Works', 11–12.

<sup>21</sup> *Ibid.*, 11–12.

<sup>22</sup> P.C. Molhuysen (ed.) *Bronnen tot de geschiedenis der Leidsche universiteit*, 7 vols. (The Hague, 1913–1924), III, 337.

<sup>23</sup> Swammerdam to Thévenot, 30 March 1678, *LJS*, 98.

<sup>24</sup> Swammerdam to Thévenot, 7 July 1678, *LJS*, 118.



The first quotation is from Spinoza's *Ethica*, but could have been written by Swammerdam.<sup>25</sup> The second quotation is not from Spinoza, but from Swammerdam's treatise on the bee, which was mainly written around 1674 and was included in the *Bybel der natuure*.<sup>26</sup> This phrase, which reminds us of Spinoza's challenged concept *Deus sive Natura*, certainly was not a slip of Swammerdam's pen. In the very same treatise he wrote: 'GOD goes through the whole earth, sea and high heavens'.<sup>27</sup> Swammerdam here seems to deny any form of Revelation, and instead embraces a concept of God which comes close to Spinoza's.

These are intriguing passages, which lead to the rather predictable question whether Swammerdam was influenced by Spinoza or vice versa. The quotations in Swammerdam's letters to Thévenot are the only explicit references to Spinoza I know of. Not a single source concerning Spinoza mentions Swammerdam. Yet, it seems highly improbable that the two were unaware of each other's existence. Although there is no proof, it is likely they occasionally met to discuss scientific, religious and philosophical matters. Spinoza and Swammerdam had mutual friends and acquaintances among whom Johannes Hudde, Nicolaus Steno, Johannes Graevius and, of course, Henri Oldenburg. Both men were not only interested in optics and engaged in the production of lenses, but had outspoken ideas on the study of nature and the knowledge of God.

However, it is not my intention to expose Swammerdam as a 'Spinozist' or even a 'crypto-Spinozist'. In fact he was definitely neither. In this highly speculative paper I will take a slightly different approach. First, I would like to suggest that Swammerdam's much discussed religious crisis was probably the result of his faith in man's rational capacities, which might very well have been prompted by his reading of Spinoza.<sup>28</sup> Reason, to Swammerdam, was simultaneously enchanting and threatening. It is this ambiguity that brings me to my second point, namely the ambivalence of some ideas concerning the relationship between God and Nature in the early Dutch Enlight-

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<sup>25</sup> Spinoza, *Ethica*, V, 24.

<sup>26</sup> Swammerdam, *Bybel*, 394.

<sup>27</sup> *Ibid.*, 395.

<sup>28</sup> Over the centuries, Swammerdam's crisis has puzzled his biographers. Boerhaave offered 'melancholy' as an explanation, Sinia 'a mental illness which we could call *theomanie*', Romein-Verschoor pointed to social circumstances, Schierbeek adopted concepts from contemporary psychology, and so on. I do not claim to have solved the question, but would only like to draw attention to an aspect which hitherto has received little notice.

enment. Proving God's existence by showing the order in Nature was not an enterprise which could be sharply distinguished from the identification of God with Nature, or vice versa. To eighteenth-century physico-theologists, this distinction was generally very clear, but it is highly questionable if this was the case for Swammerdam and some of his other contemporaries. The emphasis laid on the order in nature and the delight in detail, so characteristic for Swammerdam, had much in common with some Spinozist notions, and might well have been inspired by the same culmination of ideas.

## II. *Biographical Notes*

One of the more persistent biographical myths is that of the brilliant philosopher or scientist who lives like a hermit: an eccentric working in self-imposed seclusion. For a long time both Spinoza and Swammerdam were victims of this romantic conception. But while the flourishing Spinoza scholarship of the last few preceding decades has effectively put the Dutch thinker in his proper intellectual and social context, the image of Swammerdam is still very much as his first biographer, Boerhaave, sketched it.<sup>29</sup> To quote just the most recent example: Edward Ruestow calls Swammerdam 'a distressed soul' and puts much emphasis on his 'social failure'.<sup>30</sup> However, seen from the perspective of both old and newly found evidence, a more complex picture emerges.

We know very little about the first twenty-four years of Swammerdam's life. He was born as the eldest son of an Amsterdam apothecary who possessed a famous cabinet of curiosities. The young Swammerdam attended one of the Latin Schools in Amsterdam and may have followed some courses in philosophy or medicine at the Athenaeum Illustre. Swammerdam matriculated in medicine at the celebrated university of Leiden on 11 October 1661. Among his fellow students were Burchardus de Volder and two lifelong friends, Robertus Padtbrugge and Nicolaus Steno. For two years, Padtbrugge, Steno

<sup>29</sup> On Spinoza, see the still valuable work by K.O. Meinsma, *Spinoza en zijn kring. Over Hollandsche vrijgeesten* (The Hague, 1980 [1896]) and, more recently, Steven Nadler, *Spinoza. A Life* (Cambridge, 1999); Wiep van Bunge, *From Stevin to Spinoza. An Essay on Philosophy in the Seventeenth-Century Dutch Republic* (Leiden, 2001) and, 'Baruch of Benedictus? Spinoza en de "Marranen"', in: *Mededelingen vanwege Het Spinozahuis* 81 (2001); Israel, *Radical Enlightenment*. On Swammerdam, see note 2.

<sup>30</sup> E.G. Ruestow, *The Microscope in the Dutch Republic. The Shaping of Discovery* (Cambridge, 1996), 105, 128.

and Swammerdam operated as a trio, impressing the eminent professors Franciscus de le Boë Sylvius and Johannes van Horne with their dissecting skills.<sup>31</sup> We may assume the friends frequently discussed not only scientific, but also religious matters. Lindeboom claims Swammerdam was a devout Calvinist until he fell prey to the ‘religious fanaticism’ of Antoinette Bourignon.<sup>32</sup> However, there is no evidence for this schematic and somewhat apologetic picture. Although Swammerdam certainly was a pious Christian, he was devout in a very personal way. What we know of his contacts in early life, point more towards a spiritual quest than religious orthodoxy. He appears to have been one of the many citizens of Amsterdam who sought God by means of ‘inner enlightenment’, without being a member of one of the established confessions. There is no evidence that he was ever a member of the Reformed Church. Instead, certainly after 1670, and presumably before 1660, Swammerdam took a strong interest in mystical and spiritualistic ideas. In any case, as a student he had heterodox friends. For example, Borch frequently mentions Swammerdam’s contacts with the alchemist and playwright Catherina Questiers, who was a Roman Catholic.<sup>33</sup> Furthermore, it is interesting to note that Swammerdam’s close friend Padtbrugge was related to Isaac la Peyrère, author of the infamous *Prae-adamitae*, published in Amsterdam in 1655.<sup>34</sup> The fact that the book was immediately banned in Holland did not prevent Padtbrugge from propagating its contents.

Swammerdam’s most important friend was Steno, whose life shows striking similarities with his own. The Dane was to become famous as a scientist and, later in life, as a Catholic convert and a fierce critic of Descartes and Spinoza.<sup>35</sup> He stayed in close contact with Swammerdam throughout his life. Unfortunately, very little of their correspondence has survived. Steno came from a deeply religious

<sup>31</sup> Steno to T. Bartholinus, 5 March 1663, G. Scherz (ed.) *Nicolai Stenonis Epistolae et epistolae ad eum datae* (Copenhagen, 1952) [NSE], 169–173.

<sup>32</sup> G.A. Lindeboom, ‘Korte inleiding’ in the 1980-reprint of Swammerdam, *Bybel*, and ‘A Short Biography of Jan Swammerdam’, in: *IJS*, 3–28.

<sup>33</sup> *OBI* II, 24, 271; IV, 121.

<sup>34</sup> H.J. Pabbruwe, *Dr Robertus Padtbrugge (Parijs 1637 – Amersfoort 1703), dienaar van de VOC, en zijn familie* (Kloosterzande, s.a.); Richard H. Popkin, *Isaac la Peyrère (1596–1676). His Life, Work and Influence* (Leiden, 1987).

<sup>35</sup> G. Scherz (ed.) *Nicolaus Steno and His Indices* (Copenhagen, 1958); G. Scherz, *Pionier der Wissenschaft. Niels Stensen in Seinen Schriften* (Copenhagen, 1963); Giuseppina Totaro, ‘Niels Stensen (1638–1686) e la prima diffusione della filosofia di Spinoza nelle Firenze di Cosimo III’, in: Paolo Cristofolini (ed.) *The Spinozistic Heresy. The Debate on the Tractatus Theologico-Politicus, 1670–1677* (Amsterdam, 1995), 147–168.

Lutheran family, and the notes he took during his study in Copenhagen (1656–1660) show a sensible and inquisitive mind searching for religious and scientific certainty.<sup>36</sup> When he arrived in Holland in 1660, he was both fascinated and shocked by the intellectual and spiritual atmosphere there. Steno not only observed the many religious sects, but also the public attack on Aristotelianism. Leiden, it should be kept in mind, was one of the hotbeds of Dutch Cartesianism.<sup>37</sup> Although orthodox Calvinists strongly protested, Cartesianism was on the rise. It was at Leiden University that famous adherents of Descartes like the professor of philosophy De Raey and his colleague in the faculty of medicine De le Boë Sylvius attracted large audiences. And it was here that Steno became a convert to the New Philosophy—albeit not for very long.

Ole Borch, one of Steno's former professors in Copenhagen, during what probably was the longest sabbatical leave in history, often visited Swammerdam and Steno at their lodgings in Leiden between 1661 and 1663. He noted not only Steno's and Swammerdam's abilities to anatomize living dogs, but also mentions the latter's microscope.<sup>38</sup> This is interesting, since it certainly was not an household item for a student.<sup>39</sup> Swammerdam's instrument is not described in detail, but if it was the same one Swammerdam used some years later, it was provided by the Amsterdam mathematician and *regent* Johannes Hudde.<sup>40</sup> Hudde was famous for his mastery of Cartesian geometry, and was an expert in optics. In 1655 he published a tract on this subject and in 1657 he wrote to the notorious Utrecht Cartesian Lambertus van Velthuysen of his intention to explore the processes of generation by means of the microscope.<sup>41</sup> It may well have been Hudde who before Swammerdam's matriculation at Leiden pointed out the possibilities offered by this new field of research and provided him with the necessary particular information. Despite his many duties, Hudde remained a lifelong friend

<sup>36</sup> H.D. Schepelern (ed.) *Niels Stensen. A Danish Student in his Chaos-Manuscript 1659* (Copenhagen, 1987).

<sup>37</sup> See Van Bunge, *From Stevin to Spinoza*, 34–93, for more references.

<sup>38</sup> *OBI* II, 241, 269–272, 299.

<sup>39</sup> Cf. Ruestow, *The Microscope*; Catherine Wilson, *The Invisible World. Early Modern Philosophy and the Invention of the Microscope* (Princeton, 1995); Marian Fournier, *The Fabric of Life. Microscopy in the Seventeenth Century* (Baltimore, 1996).

<sup>40</sup> J. Swammerdam, *Historia insectorum generalis, ofte algemeene verhandeling van de bloedeloose dierkens* (Utrecht, 1669), 81.

<sup>41</sup> R.H. Vermij and E. Atzema, 'Specilla circularia: an Unknown Work by Johannes Hudde', in: *Studia Leibnitiana* 27 (1995), 104–121.

and Swammerdam died in 1680 in a house owned by Hudde's wife, Deborah Blaeu.<sup>42</sup> Dioptrics, grinding lenses and melting glass beads was still very much a pioneering affair in the early 1660s, and it is here that Spinoza comes in to the picture. Hudde and Spinoza had known each other since at least 1661 and discussed, amongst other things, mathematical and optical problems.<sup>43</sup>

Thus, the question arises: did Spinoza and Swammerdam have any contacts with one another in the early 1660s? Both lived in Amsterdam until 1661. Spinoza moved in Cartesian-atheistic circles. Very little is known of Swammerdam's whereabouts prior to his matriculation, but there is nothing that hints in the direction of a possible encounter. However, some months before Swammerdam settled in Leiden, Spinoza had moved to nearby Rijnsburg. Borch, as curious as ever, noted on 10 September 1661 that in this village, there 'is a Christian who is an apostate Jew, in fact practically an atheist (...) his only occupation being the manufacture of telescopes and microscopes'.<sup>44</sup> The sociable Borch shared this information with Hudde, and certainly would have mentioned it to his friends Swammerdam and Steno. It is certain that Steno met Spinoza in 1662.<sup>45</sup> Spinoza had by this time already developed the outlines of his philosophy, and his ideas were circulated in manuscript (notably the *Korte Verhandelng*) among his friends.<sup>46</sup> Trustworthy visitors were occasionally granted a glance at the *work in progress*. There are strong indications that Steno was among that small group. Spinoza made a deep impression on him, and in 1671 he addressed Spinoza as the 'man who once was my good friend' and referred to his 'first writings'.<sup>47</sup> In 1662, Steno was especially struck by the way the philosopher, in Cartesian fashion, tried to build up science, religion and morals. To Steno, still yearning for religious and scientific certitude, Spinoza's rational system was a revelation, if only a temporary one.

<sup>42</sup> See *IJS*, 58; G.A. Lindeboom and I.H. van Eeghen, 'Jan Swammerdam (1637–1680) als Amsterdammer', in: *Jaarboek Amstelodamum* 73 (1981), 51–69.

<sup>43</sup> *OBI*, II, 228. See also the well-known correspondence between Hudde and Spinoza in, amongst others, Samuel Shirley (ed.) *Spinoza. The Letters* (Indianapolis-Cambridge, 1995); W. Klever and J. van Zuylen, 'Insignis opticus. Spinoza in de geschiedenis van de optica', in: *De zeventiende eeuw* 6 (1990), 47–63.

<sup>44</sup> *OBI*, I, 214.

<sup>45</sup> Scherz, *Indice*, 18; Wim Klever, 'Steno's Statements on Spinoza and Spinozism', in: *Studia Spinozana* 6 (1990), 303–316.

<sup>46</sup> Spinoza, *Korte Geschriften*, ed. F. Akkerman et al. (Amsterdam, 1982); *The Collected Works of Spinoza*. Volume I, ed. Edwin Curley (Princeton, 1985).

<sup>47</sup> Steno to Spinoza, s.a. [1671], *NSE*, 231–237.

There is no direct evidence that Swammerdam met Spinoza during his student years, but it seems highly probable that he did. Given his strong interest in optics, epistemological problems and religious affairs, it is highly likely that he would have joined Steno on his trip (or trips) to Rijnsburg. At least, it is extremely unlikely that neither Steno, nor Borch nor Hudde should ever have mentioned Spinoza's name to Swammerdam. Spinoza, who reportedly studied insects with the microscope, certainly would have been interested in Swammerdam.<sup>48</sup>

After qualifying as a candidate in Medicine in October 1663, Swammerdam spent a year in France. First he studied for some months at the Huguenot academy of Saumur, where he was on friendly terms with Isaac d'Huisseau.<sup>49</sup> The Cartesian-inspired professor of theology, it should be noted, strove for the reunion of divided Christianity, by reducing it to its undisputed essentials.<sup>50</sup> This was a project which certainly will have aroused the attention of the religiously sensitive Swammerdam. After Saumur, Swammerdam moved to Paris where he met other interesting scholars and scientists. Together with Steno and Borch, he visited the weekly meetings at Thévenot's *Académie*, one of the forerunners of the Académie Royal des Sciences (1666).<sup>51</sup> At these informal meetings the members discussed Cartesian ideas and performed experiments.<sup>52</sup> As is well known, Thévenot became Swammerdam's lifelong friend and patron, and in 1680 he was bequeathed the manuscript of Swammerdam's unpublished *Bybel der natuure*. Less common knowledge, however, is the fact that Swammerdam from 1664 on was also on friendly terms with Father Nicolas Malebranche, who implicitly and explicitly

<sup>48</sup> On Spinoza's interest in insects see Colerus' 'Levens-Beschryving', as published by Freudenthal, *Die Lebensgeschichte Spinoza's*, 61–62. However, in the inventory of Spinoza's library, published in *ibid.*, 160–164, no works by Swammerdam are mentioned.

<sup>49</sup> Swammerdam, *Historia*, 109.

<sup>50</sup> D'Huisseau published in 1670 his *La Réunion du christianisme ou la manière de rejoindre tous les chrétiens sous une seule confession de foy*. On this work see: Richard Stauffer, *L'Affaire d'Huisseau. Une controverse protestante au sujet de la réunion des chrétiens (1670–1671)* (Paris, 1969). It is interesting to note that the Dutch translation of d'Huisseau's tract, *De Vereeniging Van 't Christendom* (Amsterdam, 1671) by J.H. Glazemaker was published by Pieter Arentsz, who also published works by Antoinette Bourignon.

<sup>51</sup> *OBI*, IV, 173, 180–181, 185, 287, 323.

<sup>52</sup> Harcourt Brown, *Scientific Organisations in Seventeenth-Century France (1620–1680)* (Baltimore, 1934); René Taton, *Les Origines de l'Académie Royale des Sciences* (Paris, 1966).

refers to the Dutchman in his writings (and vice versa).<sup>53</sup> How close their contact was can be deduced from the fact that around 1678 the Oratorian had access to Swammerdam's still unpublished treatise on the bee. Once more, the image of Swammerdam as the unworldly Calvinist is called into question.

Back in Holland in 1665, Swammerdam collaborated with Van Horne on the anatomy of insects and humans. The research carried out between 1661 and 1666 formed the basis for Swammerdam's thesis on respiration, which earned him an M.D. in 1667.<sup>54</sup> The work is strongly influenced by Cartesian physics, and contains a purely mechanical explanation of the motion of the lungs, chest and abdomen. While Steno had already severely criticized Descartes in 1665 at Thévenot's *Académie*, Swammerdam explicitly supported the philosopher's ideas, not only on respiration and other physiological details, but also with regard to its basic assumptions.<sup>55</sup>

The impact of the New Philosophy is clearly shown in Swammerdam's famous *Historia insectorum generalis* of 1669. From early childhood, Swammerdam had had a strong interest in insects. This was a highly original field of research. Except for some species, insects were usually considered vermin, representing the lowest stage in the 'great chain of being'. Most insects, natural philosophers since Aristotle maintained, originated from spontaneous generation, that is to say from putrefying plants, meat or excrements. Unlike the higher animals, they had no entrails. As a consequence, insects were not only neglected in scientific research but even loathed. There were some exceptions to this rule, like the bee, the ant and the butterfly. Their status, however, was not the result of a thorough knowledge of their generation but was largely due to their symbolic meaning. The Bible, the Ancients, emblem-books and contemporary natural histories all described the life of bees as a model for human society, since the ruler of the beehive was believed to be a King. Likewise, the metamorphosis of a caterpillar into a butterfly was considered a metaphor, even a proof of the Resurrection of the Dead.<sup>56</sup> It was such assumptions Swammerdam attacked vehemently.

<sup>53</sup> *LJS*, 129, 133, 135, 149, 155; Swammerdam, *Bybel*, 705; N. Malebranche, *Oeuvres complètes* (Paris, 1972–1984) I, 83; 203; XII, 230; XXII, 460.

<sup>54</sup> J. Swammerdam, *Tractatus physico-anatomico-medicus de respiratione usuque pulmonum* (Leiden, 1667).

<sup>55</sup> G. Scherz (ed.) *Steno and Brain Research in the Seventeenth Century* (Oxford, 1968); R.P.W. Visser, 'Theorie en praktijk van Swammerdams wetenschappelijke methode in zijn entomologie', in: *Gewina* 4 (1981) 63–73.

<sup>56</sup> See, for example, the extremely popular work by J. Goedaert, *Metamorphosis*

Close scrutiny led Swammerdam to the conclusion that the so-called 'king-bee' had female sexual organs. And, even more importantly, the idea of the metamorphosis of a caterpillar via chrysalis into a butterfly was entirely nonsensical. There was no such thing as a sudden, miraculous change of one creature into another. The butterfly did not resurrect from the rotting body of the dead caterpillar, but essentially *was* the caterpillar, since all the basic organs of the butterfly could already be discerned in the early stage of the creature's life. He maintained that this process was basically the same as the life cycle of the higher creatures. These were the more spectacular discoveries Swammerdam presented to his readers in 1669.

Moreover, in his *Historia*, Swammerdam sketched the general outlines of an entirely new theory of the generation of *all* insects. He vehemently attacked axioms that were three centuries old: (1) insects lack internal anatomy; (2) they originate by spontaneous generation; (3) they then develop by metamorphosis. Swammerdam self-confidently declared that he, 'by means of experience' ('door middel van de ondervindingen') had solved the mystery that for two thousand years had puzzled the most brilliant minds.<sup>57</sup> Swammerdam scorned almost every predecessor who he believed had been more preoccupied with reading books or with 'vain speculations' than with observing the processes of nature. Aristotle, Pliny, Aldrovandi, Moffet and other contemporary authors were all attacked in a most aggressive manner as not seeking truth and thereby not serving God, the almighty creator.

At first sight, Swammerdam takes an entirely empirical approach.<sup>58</sup> He denies the value of bookish knowledge and folklore, and bases himself exclusively on his own observations. Others were only to be believed insofar as he himself could verify their conclusions. The *Historia* offers many valuable observations on different kinds of insects and is in this respect far superior to Hooke's famous *Micrographia* (1665) and Redi's *Espierenze intorno alla gener-*

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*naturalis, ofte historische beschrijvinge van den oirspronk, aerdt, eygenschappen ende vreemde veranderingen der wormen ...*, 3 vols. (Middelburg, 1660–1669), which not only appeared in Dutch, but in Latin and French as well.

<sup>57</sup> Swammerdam, *Historia*, 'Naar-reden', 10.

<sup>58</sup> This is the standard-interpretation of Swammerdam's work, see for example: Ruestow, *The Microscope* and 'Piety and the Defense of Natural Order: Swammerdam on Generation', in: M.J. Osler and P.L. Farber (eds.) *Science, Religion and Worldview. Essays in Honor of Richard Westfall* (Cambridge, 1985), 217–241; Fournier, *Fabric of Life* and 'The Book of Nature: Jan Swammerdam's Microscopical Research', in: *Tractrix* 2 (1990), 1–24.



*azione degl'insetti* (1668). However, Swammerdam goes much further than observations by offering a general theory of generation. It is extremely important to note that his empiricism goes hand in hand with an axiomatic approach. Although Swammerdam occasionally used his microscope for the *Historia*, he generally used it as proving the finishing touches to his research. I would strongly argue that Swammerdam reasons more from theory to observation than the other way round. The theory behind Swammerdam's writings is clear. Since *everything* in nature obeys God's fixed and immutable laws, the argument in favour of spontaneous generation is not only impossible but even atheistic. According to Swammerdam, the recognition of the possibility of spontaneous generation would leave the door open to chance and contingency, and, as a consequence, would deny God's omnipotence. All creatures great and small have only one cause, 'Being the incomprehensible God and inscrutable Maker, who is wondrous and inimitable in his works which are based on a few rules.'<sup>59</sup> Everything in nature is a source of wonder and devotion, but the smaller the creature, the more complex its anatomy. Thus insects are among God's greatest wonders!

Swammerdam explicitly considers his *Historia* an attack on 'superstitious' ideas. In a rather aggressive (and sometimes extremely witty) way he not only overthrows the 'atheistic' theories of spontaneous generation and metamorphosis, but also destroys the symbolic view of nature. This is an important point, which is rarely remarked upon.<sup>60</sup> According to Swammerdam, the metaphor of the beehive is nonsense, since its leader is a queen, not a king.<sup>61</sup> Likewise, the much-cherished parallel of metamorphosis and resurrection is untenable. After discovering parts of the butterfly in the caterpillar, Swammerdam remarked: 'So here we see then the error of those who have tried to prove the Resurrection of the Dead from this natural and comprehensible transformation.'<sup>62</sup>

Symbolic thoughts and emblematic references are either absent from Swammerdam's work or explicitly attacked. This is a new development in natural history, which was traditionally a goldmine for such meditations. Instead, Swammerdam stresses the order of na-

<sup>59</sup> Swammerdam, *Historia*, 28.

<sup>60</sup> Cf. W.B. Ashworth, 'Natural History and the Emblematic Worldview', in: R.S. Westman and D.C. Lindberg (eds.) *Reappraisals of the Scientific Revolution* (Cambridge, 1990), 303–332.

<sup>61</sup> Swammerdam, *Historia*, 136.

<sup>62</sup> *Ibid.*, 28.

ture and the laws the Creator has imposed on His Creation. Chance, contingency and miraculous transformation are denied.<sup>63</sup> This is of course a highly mechanistic view of nature. It is no surprise then to find Swammerdam frequently referring to one of the ideologists of this new approach, 'the great Cartesius'.<sup>64</sup>

The highly iconoclastic tone and intent of Swammerdam's *Historia* reminds us, first of all, of the way in which other Cartesians attacked the 'superstitious beliefs' about nature. A good example of the way in which biblical and classical interpretations of natural phenomena are replaced by the concept of 'the laws of nature' can be found in the furious debate on the meaning of the comet of 1665.<sup>65</sup> In Utrecht, the Cartesian professors Graevius, Wolzogen and Burman denied its supernatural significance. This greatly angered orthodox Calvinists like Descartes' great opponent Gisbertus Voetius. The Utrecht Cartesians were united in the *Collegie der Scavanten*, a learned society not unlike Thévenot's *Academie*.<sup>66</sup> (It should be noted that Graevius and Thévenot maintained a lively correspondence, and often met in person). At weekly meetings new books, opinions and discoveries were discussed, corpses were dissected, and the members made fun of scholastic philosophers and their views on the order of nature. In true Cartesian fashion, a mechanical world-view was propagated and, what is equally important, war was declared on the belief in magic, spirits and hidden meanings in nature, as for example Van Velthuysen's much reprinted *Tractaet van de Afgoderye en Superstitie* ('Treatise on Idolatry and Superstition', 1669) is testimony.

Graevius' correspondence reveals the highly significant fact that Jan Swammerdam was also a frequent visitor at the meetings held in Utrecht.<sup>67</sup> This not only supports my idea that Swammerdam was a much more sociable scientist than is usually assumed, it also puts him firmly in an intellectual movement. The *Collegie* was abhorred by

<sup>63</sup> Cf. Ruestow, 'Piety and the Natural Order', who gives an opposite interpretation.

<sup>64</sup> Swammerdam, *Historia*, 'Naa-reeden', 6, 9.

<sup>65</sup> Eric Jorink, 'Van omineuze tot glorieuze tekens. Veranderende opvattingen over kometen in de zeventiende-eeuwse Republiek', in: Florike Egmond *et al.* (eds.) *Kometen, monsters en muilezels. Het veranderende natuurbeeld en de natuurwetenschap in de zeventiende eeuw* (Haarlem, 1999), 89–104.

<sup>66</sup> The classic study is: J. Hartog, 'Het collegie der Scavanten in Utrecht', in: *De Gids* 40 (1876), 77–114, which mainly paraphrases an anonymous pamphlet, *Het Collegie der Scavanten te Utrecht* (Utrecht, 1674). See, however, the following note.

<sup>67</sup> Graevius to Heinsius, 29 April 1678, in: Petrus Burmannus (ed.) *Sylloge epistolarum a viris illustribus scriptarum*, 5 vols. (Leiden, 1727), IV, 489–490.

orthodox Calvinists, and repeatedly attacked by them. Swammerdam can therefore without any reservation be counted among Holland's leading rationalists. Not only did he belong to the inner circle of prudent Cartesians such as Hudde and De Raey, as his letters to Thévenot reveal,<sup>68</sup> he was also on friendly terms with more daring intellectuals such as Graevius, Van Velthuysen and Wolzogen, who all had outspoken ideas on 'superstition' and the place of rationalism in science and scholarship.<sup>69</sup>

However, rationalism did not stop here, as Graevius *cum suis* were soon to find out. Much to their discomfort, the publication of Meyer's *Philosophia S. Scripturae Interpres* (1666), Koerbagh's *Bloemhof* (1668) and Spinoza's *Tractatus* (1670) seemed to open the gates to atheism. Biblical tradition and revealed religion were attacked in the name of rationalism. It is not unlikely that the members of the *College de Scavants* discussed these threatening books at their meetings. In any case, Graevius and Van Velthuysen (who both knew Spinoza personally) were among the first to distance themselves from these 'pestilential works'.<sup>70</sup> They had good reason to fear that the works of the unholy trinity Meyer, Koerbagh and Spinoza would discredit any attempt to reform philosophy.

### III. Swammerdam between Rationalism and Devotion

Swammerdam was deeply inspired by Cartesian rationalism and was not afraid to express this influence. But what was his opinion of Spinoza? There is no direct evidence that he met Spinoza in Rijnsburg, nor that he read the *Tractatus*. But if he had read the *Tractatus* as I think highly probable, he certainly would have applauded Spinoza's emphasis on the fixed and immutable laws of Nature and the denunciation of contingency and chance. 'Order' was the keyword of Swammerdam's own *Historia*, and like Spinoza he equated 'chance' with 'atheism'. Swammerdam would also have subscribed to Spinoza's ruthless separation of rationalism and the belief in myths and historical narratives. Furthermore, Swammerdam would have read Spinoza's book as an encouragement to identify God

<sup>68</sup> *LJS*, 58, 64.

<sup>69</sup> Van Bunge, *From Stevin to Spinoza*, 34–83; Israel, *Radical Enlightenment*, 205–217.

<sup>70</sup> Wiep van Bunge, 'On the Early Dutch Reception of the *Tractatus theologico-politicus*', in: *Studia Spinozana* 5 (1989), 225–252; Israel, *Radical Enlightenment*, 205–217.

with Nature, and to seek Him in even His tiniest creations. This was a conclusion his own investigations were already leading him towards. The microscopic research Swammerdam undertook after 1670 made him exclaim that here: 'GOD's invisibility becomes visible (...) the hidden creator becomes so manifest in these small Animals, that the experience of the same, serves me as the biggest proof to evince without yielding his eternal Divinity and Providence against all his detractors'.<sup>71</sup> 'The power of Nature is the divine power and virtue', Spinoza had written in the *Tractatus*, 'and the divine power is the very essence of God (...) from miracles we cannot gain knowledge of God, his existence and providence, and these can be far better inferred from Nature's fixed and immutable order'.<sup>72</sup>

Whether Swammerdam had read Spinoza in 1670 or not, the year marked a new phase in his career. The *Historia* was essentially a programmatic work, offering general theories on the world of insects and providing epistemological tools for studying them. It was basically an axiomatic book, offering empirical data to support the underlying propositions, rather than the other way around. Swammerdam had appealed to the 'order of nature' and referred mainly to Descartes in his war against the propagators of spontaneous generation. Before then, Swammerdam had scarcely dissected insects and, as a consequence, had made little use of his microscope. Much of the work for the *Historia* was done with the naked eye (and endless patience). For various reasons Swammerdam from now on devoted himself almost exclusively to the dissection of God's tiniest creatures, and started studying their minute entrails with optical tools. The notes he took between 1670 and 1674 betray obsessive labour, which literally continued day and night. What exactly caused this feverish research remains a matter of speculation. It was perhaps the success of the *Historia* which made friends like Thévenot and Christiaan Huygens urge him to continue with his research in the hope of him making more discoveries.<sup>73</sup> As Ruestow and Cobb have recently suggested, it might well have been the challenge of Malpighi, who published a pioneering study on the anatomy of the silkworm, *De bombyce*, while Swammerdam's *Historia* was still at the press which drove

<sup>71</sup> Swammerdam, *Bybel*, 394.

<sup>72</sup> Spinoza, *Tractatus theologico-politicus*, ed. Samuel Shirley (Leiden, 1989), Chapter 6: 126, 129.

<sup>73</sup> Swammerdam to Thévenot, 30 October 1670, *LJS*, 57.

him.<sup>74</sup> I would like to emphasize a third factor which influenced his hard work, namely Swammerdam's boundless faith in human reason and the discernable order of nature.

Swammerdam was highly equivocal on rationalism. The Lord's works were incomprehensible, he constantly lamented, and scientific research simultaneously 'clearly brings before our eyes the immense wisdom of an omnipotent God, and our own weakness or even imbecility'.<sup>75</sup> But although his own research was like 'making a drawing of the sun with charcoal', it nevertheless brought him closer to the Creator. How close?

When he wrote the *Historia*, Swammerdam, despite his original field of research, held rather traditional views on God and nature. He believed God was the providential Creator, whose power could be admired in His creatures. This was what the Bible and the Belgic Confession, the cornerstone of Dutch Reformed orthodoxy taught:

We know Him by two means: first, by the creation, preservation, and government of the universe; which is before our eyes as a most elegant book, wherein all creatures, great and small, are as so many characters leading us to contemplate 'the invisible things of God', namely 'His eternal power and Godhead' as the Apostle Paul says (Rom. 1: 20) (...) Secondly, He makes Himself more clearly and fully known to us by His holy and divine word.<sup>76</sup>

In his *Historia*, Swammerdam explicitly referred to Romans 1: 20 and, more generally, offered new and fascinating proofs for the existence of an omnipotent Creator. Science, if not identical with religion, at least served a religious purpose, namely the glory of God. Swammerdam subscribed to a form of natural theology which, although not unproblematic in itself, was nevertheless in accordance with Dutch reformed orthodoxy.

However, after 1670, the initial balance in Swammerdam's mind between the Bible and the Book of Nature, between devotion and science was temporarily lost, resulting in his departure for Schleswig-Holstein. In 1675, Swammerdam feared he had neglected Revelation, and instead had put far too much emphasis on Reason. In

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<sup>74</sup> Ruestow, *The Microscope*, 120; M. Cobb, 'Malpighi, Swammerdam and the Colourful Silkworm: Replication and Visual Representation in Early Modern Science', in: *Annals of Science* 59 (2002), 111–147.

<sup>75</sup> Swammerdam to Oldenburg, 31 August 1677, *CHO*, XIII, 344.

<sup>76</sup> As quoted in the excellent study by John Platt, *Reformed Thought and Scholasticism. The Arguments for the Existence of God in Dutch Theology, 1575–1650* (Leiden, 1982), 109–110.

other words, he felt extremely guilty for exclusively following the path of natural theology which according to his own consciousness, inevitably led him via deism, materialism and *curiositas* to idolatry and ungodliness.

How deep Swammerdam's religious crisis in the years 1673–1675 was, can be gauged from his research on bees. Science and religion were no longer in balance, but were conflicting in a most destructive way:

When I carried out my research on the bees, on which I worked without interruption from half past five in the morning until twelve in the afternoon, countless times I had to neglect my religious exercises (...) Which sometimes caused such an inner conflict that I shed tears of distress. For it was as if a warring host were there within my spirit, the one party compelling me to cling to God, the other, with infinite arguments, to go on in my pursuit of curiosities<sup>77</sup>

It was this conception of the relation between science and devotion that urged Swammerdam to reject his research, his 'only and beloved son', like another Ishmael.<sup>78</sup>

However, behind the well-known conflict between science and religion which Swammerdam experienced, lies a second and far less recognized obsession: his conception of God. This is an important theme, especially in relation to the spread of Spinozist ideas in the Netherlands. As stated above, Swammerdam was certainly a devout Christian, although not an orthodox Calvinist. However, the image of God that emerges from the *Historia* was in accordance with Calvinist orthodoxy. God was the omnipotent creator and providential keeper of the universe, who maintained a certain distance from His creation. After 1670, Swammerdam's idea of God becomes rather confused. From then on Swammerdam sometimes described Him as the 'all-seeing', the 'omniscient Architect' or 'the great Artist', terms with not only a Stoic, but a mechanical connotation as well.<sup>79</sup> Swammerdam, the pioneering microscopist, exclaimed to Oldenburg: 'Everywhere and in the humblest of creatures the traces of divine wisdom and supreme skill are made known'.<sup>80</sup> God was no longer the distant Creator of Nature, He *was* Nature. By studying Nature, Swammerdam felt he came face to face with God. Even if Swammerdam's power of vision and his scientific instruments were limited, He was clearly

<sup>77</sup> Swammerdam, *Ephemeris vitae*, 249.

<sup>78</sup> *Ibid.*, 240, 248.

<sup>79</sup> Swammerdam, *Bybel*, 385, 505, 650, 703, 705, 718.

<sup>80</sup> Swammerdam to Oldenburg, 14 January 1673, *CHO*, IX, 413.

visible.<sup>81</sup> The Lord was 'formidable', 'dreadful' and even 'terrible' in His works.<sup>82</sup> He was so near that Swammerdam wrote he could not only *see* God in His creatures, but *touch* Him as well!<sup>83</sup> *Deus* and *Natura* clearly had become identical for Swammerdam.

In notes taken between 1673 and 1675, Swammerdam repeatedly stated that the *only* way to know God was to study nature: 'in what else is He knowable, other than in his own works?'<sup>84</sup> Like Spinoza, Swammerdam here completely rules out divine revelation, and instead identifies God with Nature. 'All creatures outside of God are a Nought' ('Alle schepselen buyten Godt zijn een Niet'), Swammerdam wrote, echoing consciously or not Spinoza's *Korte Verhandelng*, Part I, Cap. II, sec. 23: 'Outside God, there is nothing' ('datter buyten God niets niet en is').<sup>85</sup> Swammerdam went so far as to openly play with the idea that all living creatures, including insects, were different *modi* of one single Being: 'one can state with truth that God has created only one animal, which he has concealed and made distinct underneath an infinity of shapes, curves, convolutions, and stretchings of limbs: to which he has subjoined a different nature, way of life and food'.<sup>86</sup>

Was Swammerdam one of the pioneers of comparative anatomy, or merely an attentive reader of Spinoza? I would like to suggest he was both. The feverish way in which he tried to find God in His creatures might very well have been propelled by the intellectual prospects radical rationalism offered. However, striking parallels with Spinoza can easily be paired with lines, written in the same years, in which Swammerdam seems at odds with the philosopher. In many instances, Swammerdam refers to the traditional view of God as the creator, and praises His Revelation in both Nature *and* Scripture. Swammerdam also assures his readers that, by studying insects, he has 'climbed up to God' in a way which is perfectly in accordance with the Psalms, St Augustine and Calvin. Moreover, symbolic meditations, so vehemently attacked in the *Historia*, became a main theme, notably in his treatise on the mayfly.

In other words, between 1670 and 1675 Swammerdam struggled greatly with questions concerning the status of Revelation and the na-

<sup>81</sup> Swammerdam *Bybel*, 495.

<sup>82</sup> *Ibid.*, 57, 65, 598, 694.

<sup>83</sup> *Ibid.*, 762.

<sup>84</sup> *Ibid.*, 394.

<sup>85</sup> Swammerdam, *Ephemeris vita*, 277; Spinoza, *Korte geschriften*, 263; *Collected Works*, 72.

<sup>86</sup> Swammerdam, *Bybel*, 70.

ture of God. This crisis may very well have been stimulated by reading Spinoza, whose somewhat cryptic identification of *Deus* with *Natura* puzzled and even outraged so many.<sup>87</sup> How was the power of Nature related to the power of God? Oldenburg, for example, wrote to Spinoza: 'I cannot but approve of your intention of wishing to elucidate and render easier those things in the *Tractatus theologico-politicus* which have tormented readers'. He particularly had the passages in mind in which Spinoza writes so ambiguously about God and Nature, and added that 'they say you are concealing your opinion with regard to Jesus Christ, Redeemer of the world, sole Mediator for mankind, and of his Incarnation and Atonement'.<sup>88</sup> This was indeed a great problem for the reception of Spinoza's works, as others repeatedly pointed out.

Steno, the Dane who had converted to Catholicism in 1667 and was now a fervent anti-rationalist, for example, in 1671 complained to Malpighi that 'certain Dutch friends' tried to make reason the judge of Grace.<sup>89</sup> In the same year, Steno boldly addressed the main culprit, his former friend Spinoza, whose ideas, he confessed, had previously enchanted him.<sup>90</sup> Steno charged 'The Reformer of the New Philosophy' with outright materialism: 'For it is a religion of bodies, not of souls, that you are advocating'. He pointed to the realm of the spiritual, which Spinoza's materialistic philosophy ignored, even ruled out. Steno wrote that Spinoza's philosophy denied Revelation, Redemption and Grace, not to mention the Holy Writ, Jesus Christ and miracles. The only way to repent of this error was to embrace the Mother Church. 'Non est Deus sicut Deus noster'—'There is no God like our God'.<sup>91</sup>

It is very likely that Swammerdam experienced a similar struggle to Steno's, who in 1677 publicly announced that his religious conversion ten years earlier had been prompted by his confusion over Dutch rationalism. I believe Swammerdam's religious conviction faced the same enemy, although he never converted to Catholicism. Earlier in his career, Swammerdam had laid such emphasis on scientific means—his rigid belief in the immutable laws of nature, his micro-

<sup>87</sup> Van Bunge, 'On the Early Dutch Reception', and *Johannes Bredenburg (1643–1691). Een Rotterdams collegiant in de ban van Spinoza* (Rotterdam, 1990).

<sup>88</sup> Oldenburg to Spinoza, 15 November 1675, *CHO*, XII, 56.

<sup>89</sup> Steno to Malpighi, 24 November 1671, *NSE*, 248: 'Ho certi amici in Ollanda dati tutti all filosofia Cartesiana a segno tale che di volere fare la filosofia giudice delle notizie della grazia'.

<sup>90</sup> Steno to Spinoza, s.a. [1671], *NSE*, 231–237.

<sup>91</sup> *Ibid.*, 234.



scope, and his extremely high self-esteem as a researcher—that these had become an aim in itself. The sense of guilt thus provoked was certainly one of the factors which contributed to his religious crisis. To his dismay, Swammerdam discovered that belief in rationalism—be it Cartesian or Spinozist—sooner or later came to rule out Revelation. The mystery of Grace was endangered by determinism and fatalism. To exorcize these demons, Swammerdam began to study the Bible obsessively, notably the Book of Revelation. He wrote religious poetry, and read Jacob Boehme, Antoinette Bourignon as well as many other mystical authors.<sup>92</sup>

It is highly significant that from 1673 on Christ, until then absent from Swammerdam's writings, was lavishly praised as the only Redeemer. He devoted many poetic and prosaic lines to the son of God. He came to believe that to love God was not to reason, but to embrace Christ. In the *Ephemeris vita*, Swammerdam wrote:

And one renounces God, when one makes one's own reason the spiritual guide in religion. We are damned forever, if we do not allow Jesus Christ (...) to be our sole and only guide. So, one loses reason forever, if one tries to understand God through reason.<sup>93</sup>

#### IV. *Chrétiens sans Église*

At the end of 1674, when Swammerdam's struggle with rationalism was most acute, Steno tried to lead Swammerdam to Rome. He did not succeed.<sup>94</sup> In 1678, Swammerdam complained to Thévenot that Steno was so obsessed that he 'only thinks of making someone Catholic, without paying attention to the essence of religion'.<sup>95</sup> This was an observation Spinoza certainly would have approved of. In the same letter to Thévenot, Swammerdam wrote his *credo*: 'only he who loves God and his neighbours like himself may become blessed by Christ even if he were a Turk by birth, because we have all been saved by Christ, and he who invokes God in the simplicity of his heart, and in the performance of the law of nature also invokes Christ, because God is trinity in person'.<sup>96</sup>

<sup>92</sup> Swammerdam, *Ephemeris vita*, *passim*; Swammerdam to Tielens, 18 March 1673, in: J. Hase, *Getuigenis der waarheid* (Amsterdam, 1679), 188–190.

<sup>93</sup> Swammerdam, *Ephemeris vita*, 267.

<sup>94</sup> Steno to Cosimo III, 25 September 1674, *NSE*, 298.

<sup>95</sup> Swammerdam to Thévenot, Januari 1678, *LJS*, 84.

<sup>96</sup> *Ibid.*

In 1675, it was not Catholicism or any other established church that appealed to Swammerdam, but Bourignon's highly spiritual, slightly millenarian teachings, which preached self-denial and the imitation of Christ. What exactly attracted Swammerdam to Bourignon remains a mystery, but the religious problems rationalism presented him with were certainly involved.<sup>97</sup> Bourignon was rigorously anti-philosophical, and in 1668 had even tried to convince some 'Sec-tateurs de la Philosophie de des Cartes', the notorious professors Burman and Heidanus, that Cartesianism was the worst heresy the world had ever seen, equal to atheism.<sup>98</sup> Likewise, she considered the established churches, be it Reformed or Catholic, as signs of Babylonian confusion. On Steno's efforts to convert Swammerdam she commented: 'je croy que-luy même ne scait pas où est la vraye Eglise: laquelle consiste en l'assemblée des âmes qui sont possédées de L'Esprit de Jesus Christ'.<sup>99</sup> Bourignon had written in her lengthy treatises that to abandon all worldly pursuits and follow Christ was the only way to salvation. She warned Swammerdam that his research was 'Amusements de Satan'.<sup>100</sup> 'Il ne vous faut boucher les oreilles à la voix intérieur du Seigneur', she assured him, 'Delaissier les choses de la terre; retirez vos affections des creatures; renoncez à vous-memes'.<sup>101</sup> After long nights in prayer, Swammerdam sacrificed his scientific activities:

And I therefore no longer want to look for you [God] in the woods, the groves, or in the mountains; in the fields, valleys or among the hills; or in the rivers, waters, or the seas. I wish no more to seek you by turning nature upside down, nor by searching in the incomprehensible wonders of the embroidered entrails of animals, both great and small. For their inscrutable origin, oh my God, is in you alone.<sup>102</sup>

In the Summer of 1675, he set sail for Schleswig-Holstein, after having destroyed his treatise on the silkworm.<sup>103</sup>

<sup>97</sup> On Bourignon see: G.A. Lindeboom, 'Antoinette Bourignon's First Letter to Jan Swammerdam', in: *Janus* 61 (1975), 183–199; Miriam de Baar, 'Jan Swammerdam in de ban van Antoinette Bourignon', in: *Tijdschrift voor vrouwenstudies* 16 (1995), 316–332 and De Baar's forthcoming dissertation, *'Ik moet spreken'. Het religieus leiderschap van Antoinette Bourignon*.

<sup>98</sup> P. Poirer, *La Vie de Damille Antoinette Bourignon* (Amsterdam, 1683), 295, 306.

<sup>99</sup> A. Bourignon, *L'Appel de Dieu et les refus des hommes* (Amsterdam, 1682–1684), II, 63–72.

<sup>100</sup> Lindeboom, 'Bourignon's First Letter'.

<sup>101</sup> Bourignon, *L'Appel de Dieu*, II, 32–37.

<sup>102</sup> Swammerdam, *Ephemeris vita*, 322–323.

<sup>103</sup> Steno to Malpighi, 18 July 1675, *NSE*, 306. Steno tellingly comments: 'Cerca Dio, ma non ancora nella Chiesa di Dio'.

However spectacular this step may seem, Swammerdam was not the only one to turn to Bourignon. She aroused the attention of other natural philosophers struggling with problems concerning Rationalism and Revelation. For example, one of the better known members of Bourignon's gatherings in Schleswig-Holstein was the former Cartesian Pierre Poiret.<sup>104</sup> In 1680, a few months before she died, Bourignon received a letter and a subsequent visit from the Amsterdam physician Stephan Blankaart, the author of many widely read Cartesian-inspired works on natural philosophy.<sup>105</sup> And no less a scientist than Robert Boyle is reported to have been in contact with Bourignon.<sup>106</sup> Swammerdam's zeal was certainly less unusual than it might at first appear.

At a doctrinal level, the gap between the teachings of Bourignon and Spinoza might seem unbridgeable, but it is highly questionable if this was clear to every truth-loving and Christ-seeking contemporary. Swammerdam appears to have been one of many Dutchmen who yearned for spiritual enlightenment, and who was committed to the freedom of the individual to worship God in his own manner, unconstrained by church or dogma.<sup>107</sup> It is highly significant that Leibniz in 1675 should erroneously assume that Swammerdam had become a Quaker.<sup>108</sup> 'Inner light' was the keyword for all those *chrétiens sans Église*, who were attracted to Bourignon, but also to Milenarianism, Behmenism, the Collegiants, Quakerism, Labadism and even Spinozism. The distinctions between these movements were hard for outsiders to comprehend, and often not crystal clear to the followers themselves. To a certain extent these movements were even interchangeable, since they appealed to the same religious sentiments. It is interesting to note that among Bourignon's earliest Dutch followers were two wealthy Amsterdam merchants with Collegiant sympathies, Jan Tielens and Volkert van der Velde, who in 1670 gave up their business (and bank accounts) to lead a truly Christian

<sup>104</sup> M. Chevallier, *Pierre Poiret (1646–1719). Du protestantisme à la mystique* (Geneva, 1994).

<sup>105</sup> I owe this information to Miriam de Baar.

<sup>106</sup> Again, I owe this information to Miriam de Baar, who will elaborate on this theme in her forthcoming dissertation.

<sup>107</sup> See, for example, Leszek Kolakowski, *Chrétiens sans Église. La conscience religieuse et le lien confessionnel au XVIII<sup>e</sup> siècle* (Paris, 1969); E.G.E. van der Wall, *De mystieke chiliast Petrus Serrarius (1600–1669) en zijn wereld* (Leiden, 1987); Andrew C. Fix, *Prophecy and Reason. The Dutch Collegiants in the Early Enlightenment* (Princeton, 1991).

<sup>108</sup> See note 9.

life.<sup>109</sup> This reminds one of Pieter Balling and Jarig Jellesz, Spinoza's close friends, who moved in the same circles and who made similar decisions.<sup>110</sup> And, like Spinoza, Bourignon attracted literate or half-literate artisans with a Mennonite or Collegiant background.

To some, the French mystic and the Dutch philosopher seemed to propagate a similar message. Their works even appeared at the same publisher, Jan Rieuwertsz. The heterodox Amsterdam printer not only issued Spinoza's study on Descartes' philosophy, both in Latin and Dutch (1663–1664), and the explosive *Tractatus theologico-politicus*, but also played an active role in editing and publishing the *Opera posthuma*.<sup>111</sup> In collaboration with his friend Pieter Arentsz (who had already published, *inter alia*, d'Huisseau's *Vereenighing van 't Christendom* and many of Bourignon's works), Rieuwertsz started a new project in 1678, *Toutes les Oeuvres d'Antoinette Bourignon en 19 volumes*, which not only appeared in French, but also in German and Dutch.<sup>112</sup> Among the translations were some by Swammerdam.

### V. Epilogue

In the summer of 1676, Swammerdam was back in Amsterdam. Contrary to what is often maintained, he resumed his research.<sup>113</sup> 'You do well', he wrote to a worried Oldenburg, 'and act the part of a friend properly when by repeated letters you recall me to the contemplation of nature, thinking me languid and unmindful of my former concerns. But to confess what is true, I have more need of the bridle than the spur (...) I was never at any time busier than in these days, and the chief of all architects has blessed my endeavours'.<sup>114</sup> By 1678,

<sup>109</sup> E. Lievense-Pelser, 'De Remonstranten en de secte van Antoinette Bourignon', in: *Nederlands Archief voor Kerkgeschiedenis* 57 (1977), 210–221.

<sup>110</sup> Meinsma, *Spinoza en zijn kring*, *passim*; Fix, *Prophecy and Reason*, 185–214; W.G. van der Tak, 'Jarich Jellesz' Origins; Jellesz' Life and Business', in: *Mededelingen vanwege Het Spinozahuis* 59 (1989).

<sup>111</sup> Steenbakkens, *Spinoza's Ethica*, 5–70; Akkerman, *Studies*; Piet Visser, "Blasphemous and Pernicious". The Role of Printers and Booksellers in the Spread of Dissident Religious and Philosophical Ideas in the Second Half of the Seventeenth Century', in: *Quaerendo* 26 (1996), 303–326.

<sup>112</sup> Bourignon's bibliography is a complex one, including many translations and reprints. For a tentative survey see: M. van der Does, *Antoinette Bourignon: sa vie (1616–1680)—son oeuvre* (Groningen, 1974), 5–41. See also Visser, "Blasphemous and Pernicious", 313.

<sup>113</sup> See, for example, Wilson, *Invisible World*, 188.

<sup>114</sup> Swammerdam to Oldenburg, 31 August 1677, *CHO*, XIII, 343–344

Steno had been appointed bishop, Spinoza had died, and Swammerdam himself had entered the final stage of his life. Mentally more stable, he was at this time finishing his ‘great work’, the brilliant book that would be published by Boerhaave in 1737. Gone was the militant, sometimes even boasting tone of the *Historia*. Gone too was the chaotic style of the *Ephemeris vitae*, which had oscillated between minute description and endless lamentation. Swammerdam had obviously found a balance between science and devotion, between revealed and natural theology. Nature was no longer an idol, nor was it identified with God. God was now the providential Creator, whose greatness could be admired in ‘the Bible of his Creatures’, as he repeatedly wrote. Swammerdam rediscovered tradition by reviving and transforming the centuries-old notion of the Book of Nature.<sup>115</sup> Arguments for God’s existence, as provided by Swammerdam’s famous dissection of the louse in 1678, were to become extremely influential in eighteenth-century physico-theology.

Whether Swammerdam’s religious crisis was stimulated by an over-enthusiastic reading of Spinoza’s works or personal contacts with the philosopher, remains a matter of speculation. But two things are clear. First, that the works of Swammerdam’s former spiritual leader Bourignon and Spinoza could be interpreted as offering similar answers to the needs of divided Christianity, at least in the eyes of some contemporaries. And secondly, coincidentally or not, that Swammerdam and Spinoza during the 1660s shared the conviction that *everything* in nature obeyed the same fixed laws. Both Spinoza and Swammerdam maintained in the strongest words that to leave room for chance and contingency was to deny the power of God, and thus equal to atheism. The emphasis laid on the ‘order of Nature’ is important in this respect, as is the rejection of ‘superstitious’ beliefs and myths. Eighteenth-century physico-theologists had their own ideas on what superstition and atheism was, and used the observations of, among others, Swammerdam against the ‘Spinozists’ and others who denied the existence of a providential God. But their attack was the result of only one interpretation of Spinoza’s rather ambiguous phrase *Deus sive Natura*, although a very influential one. Other readings were possible as well, as is evident from the fact that some of Spinoza’s earliest followers were pious Christians. The identification of God with Nature offered the possibility of worshipping the Maker unconstrained by religious or philosophical dividing lines. If

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<sup>115</sup> See my forthcoming dissertation, *Het Boek der Natuur. Veranderende opvattingen over de wonderen van Gods schepping in de Republiek, 1575–1715*.

this idea for some time motivated Swammerdam, it leaves us with the somewhat imperfect conclusion that it was this very same concept, which in the eighteenth century was considered both the poison and its antidote.



THE SHIPWRECK OF BELIEF AND ETERNAL BLISS:  
PHILOSOPHY AND RELIGION IN LATER  
DUTCH CARTESIANISM

HAN VAN RULER

At the end of the seventeenth century, the prolific writer and theologian Herman Witsius (1636–1708) compared the fate of the Dutch Literary Republic to the commercially risky enterprise of colonial sea trade. In our days, says Witsius, the *Respublica Literaria* resembles

a skilfully designed ship, properly loaded with precious merchandise and eagerly heading for home, but which the steersmen, skippers and passengers, and others around—with a few idly calling upon the protection of God or men—plunder in a heinous act of immorality; and which, wickedly quarrelling over the distribution of the goods and disregarding navigation, they submit to the winds, so that it will be thrown on the rocks, devoured by the waves, or plundered by pirates.<sup>1</sup>

Bad stewards call their misfortune upon themselves. Here we are, the Utrecht professor argues, at a time in which philosophy, medicine, law and theology flourish as they have never before. And what happens? Bad philosophers misappropriate their art, expose the Bible to their critical wit and subject everything sacred to the arrogance of their ingenuity. ‘Ultimately,’ says Witsius, ‘Christian Religion itself is stripped of its mysteries and transformed, if anything, into a rational cult of Divinity.’<sup>2</sup> Witsius would rather have had no cultural prosperity at all than such abuse of scientific achievements.

Quoting Witsius’ *Oration* nineteen years later, the Franeker philosopher and theologian Ruardus Andala added that, in 1717, things in the literary republic had become even worse.<sup>3</sup> Indeed, the valu-

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<sup>1</sup> Herman Wits, or Witsius, *Oratio de felici an infelici Reipublicæ literariæ hoc seculo, statu*, quoted from: Hermannus Witsius, *Miscellaneorum Sacrorum Libri Quattuor* (Hernborn, 1712<sup>3</sup>), 950. The lecture was held to mark the end of Witsius’ second term as *rector* of Utrecht University. Soon after his Utrecht lecture, Witsius would be appointed at Leiden. See: Jan van Genderen, *Herman Witsius. Bijdrage tot de kennis der gereformeerde theologie* (The Hague, 1953), 76–78. Before he came to Utrecht, Witsius had taught theology at Franeker. On the question of his position within the history of Dutch Cartesianism, see: C. Louise Thijssen-Schoute, *Nederlands cartesianisme* (Amsterdam, 1954), 523–527.

<sup>2</sup> Witsius, *De statu Reipublicæ literariæ*, 949.

<sup>3</sup> Ruardus Andala, *Apologia pro vera & saniore philosophia, quatuor partibus comprehensa* (Franeker, 1719), 2: ‘Si & mihi sententiam dicere liceat, censerem Rempublicam literariam, post annos 19 inde elapsos, majore jure ita depingi mereri.’ The text



able cargo of Cartesian thought, this ‘healthy, true, unique [and] very useful’ type of philosophy, which, according to Andala, is a ‘necessary tool for saving religion’, is now even more in danger of being lost to looting Spinozists and other forgers of Cartesianism such as Geulincx, Le Clerc and Locke. Even the great Burchard de Volder was at one point gravitating towards Spinozistic ideas.<sup>4</sup> In order to guard against Spinoza and his followers, Andala took custody of the precious Cartesian heritage and planned to show that Descartes differs from Spinoza as light differs from darkness.<sup>5</sup>

Andala would never have written his *Apologia* of Cartesianism if a Zeeland student in Franeker had not assured him of the success, back in Middelburg, of the professor’s book against Geulincx. The

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of the first part had been published separately in 1718 as *Apologia pro vera & saniore philosophia. Pars prima, In qua, Universam Cartesii Philosophiam à B.D.S. Sophismatibus, impiis dogmatibus, ipsissimoque Atheismo, non minus deferre, quam lucem à tenebris, clarissime & [anantirrētōs] ostenditur* (Franeker, 1718), in the form of an academic disputation over which Andala presided with his student Henricus à Borssum acting as *respondens*. Apparently, the text was written in 1717, that is nineteen years after Witsius’ lecture.

<sup>4</sup> Andala, *Apologia*, 6: ‘Non tantum Ethicæ Geulingianæ Spinosismum, & quam plurima periculosissima dogmata Clerici, non pauca etiam Lockii, sed vel ipsius Acutissimi & Incomparabilis ceteroquin viri, Cl. de Volder Spinozistica fundamente, paucis, antequam docendi munere habita Oratione se abdicavit, mensibus, detexi.’ For Andala’s criticism of De Volder, see: Ruardus Andala, *Examen Ethicæ Clar. Geulingii. sive Dissertationum Philosophicarum, in quibus præmissa Introductione sententiæ quædam paradoxæ ex Ethica Clar. Geulingii examinantur, Pentas* (Franeker, 1716), 18–19. Andala strongly disapproves of De Volder’s way of emphasizing that reason cannot offer any intelligible account of the interaction of body and soul. According to Andala, it made no sense to search for a ‘necessary’ or ‘natural’ connection, since God freely established an ‘arbitrary’ connection between body and the soul. To aim at a *rational* interpretation of the interaction of movement and thought, is to do exactly what Spinoza did. Accordingly, we should not, says Andala, abandon the Cartesian method of explaining all bodily action mechanically whilst at the same time linking physiological causes to thoughts. All scepticism regarding Cartesian mechanicism is thus suspect, since, like Le Clerc, one might end up doubting the substantial difference between the mental and the physical. See also the fourth part of the *Apologia*, in which Andala criticizes Boerhaave’s as well as De Volder’s scepticism with regard to the possibility of attaining certainty in physics. Andala thus reinterpreted Witsius’ admonitions as a warning against abandoning the Cartesian philosophy. Note that, although he was no Cartesian himself, Witsius, in his 1698 *Oration*, also acknowledged Descartes’ fame, mentioning the French philosopher besides Bacon and Boyle and the British and French Scientific Societies as testimony to the fact that philosophy was flowering, and adding that Descartes was ‘loathed by some, venerated by others, [but] generally acknowledged to be a person of great renown.’ Witsius, *De statu Reipublicæ literariæ*, 941.

<sup>5</sup> Andala, *Apologia*, 6–7.

young man showed him a copy of Carolus Tuinman's *De liegende en bedriegende vrygeest*, at the end of which *dominee* Tuinman calls for 'some accomplished Cartesian' to stand up and defend the Master's, i.e. Descartes', Christianity. Is it not so that 'learned and devout men' (Johannes Regius would later name Voetius, Spanheim, Hoornbeek, Mastricht, Leydekker and De Vries<sup>6</sup>) had predicted many years ago that pernicious consequences would follow from Descartes' principles? Today, writes Tuinman, we see freethinkers speaking highly of Descartes, whilst others link the rise of libertinism in Zeeland to the absence of *well-advised* Cartesians. What is one to think? It is high time for some honest Cartesian to cut the Gordian knot and explain Descartes' position, especially with regard to the relationship between God, as the prime cause, and secondary causes.<sup>7</sup>

### I. God as Substance

Andala accepted the challenge. He set out, in the first part of his *Apologia*, to exonerate Descartes from the charge of Spinozism and did so by contrasting Descartes' philosophical terminology with Spinoza's. According to Descartes, a substance is 'a thing which exists in such a way as to depend on no other thing for its existence.' This definition, wrote Andala, not only excels the clumsy Aristotelian one, according to which a substance is something which 'exists, or subsists by itself', but it is also to be greatly preferred over Spinoza's misleading notion that a substance is something which 'is in itself and is conceived through itself.'<sup>8</sup> According to Andala, Spinoza's bad faith becomes apparent from his *Principia Philosophiæ Cartesianæ*, in which he recasts Descartes' idea of substance as a thing 'which only depends on God's concurrence for its existence.' This definition, wrote Andala, is a perversion of Descartes' way of thinking, since it

<sup>6</sup> Johannes Regius, *Cartesius verus Spinozismi Architectus* (Franeker, 1719), 3, quoted in: Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001), 483.

<sup>7</sup> Carolus Tuinman, A. *Geulinx Medemaat van B. de Spinoza, en der Vrygeesten*, in: Carolus Tuinman, *De liegende en bedriegende vrygeest ontmaskert* (Middelburg, 1715), 48–49.

<sup>8</sup> Andala, *Apologia*, 17–18. For Descartes' definition of substance, see *Principia Philosophiæ* I, 51, in: *Œuvres de Descartes*, 11 vols., ed. Charles Adam and Paul Tannery (Paris, 1982) [AT], VIII-I, 24. Quoted from: *The Philosophical Writings of Descartes*, 3 vols., ed. John Cottingham *et al.* (Cambridge, 1985–1991) [CSM], I, 210. For Spinoza's definition, see: Benedictus de Spinoza, *Ethica* I, definition 3.

only applies to created substances. Indeed, Descartes had expressly stated that the term 'substance' does not apply univocally to Creator and creation.<sup>9</sup>

The question of univocity is crucial. It is in fact Andala's only tool to save Descartes' idea of substance from the Spinozistic conclusion that there can be only one. 'Thus,' says Andala,

it is nonsensical and misleading to say: 'A substance is that which does not depend (...) What depends on some other thing is not a substance. A created thing depends on something else. Hence, it is not a substance.' Or likewise: 'Every substance is by itself and through itself in an absolute manner. A created thing is not by itself and through itself. Hence, it is not a substance.'

The small difference lies in the fact that God does not depend on anything *at all* (*nulla plane re indiget*). But apart from God, there can also be created substances, to which the definition applies equivocally and 'with minor emphasis', since these created substances themselves depend on God.<sup>10</sup> Andala's general strategy in the *Apologia* is to depict Spinoza as a hypocrite. He argues that on the one hand, Spinoza had raised hopes that he would build on Cartesian principles. On the other, he could not conceal the dangerous character of his own deviations from Descartes—and, as Andala judges from Spinoza's correspondence, Spinoza was very well aware of this.<sup>11</sup>

We may easily accept Andala's view on both accounts: Spinoza was *not* faithful to Descartes and he *did* fear public response to his own ideas. But does that make him a hypocrite? The question of the definition of substance is a very instructive one. Clearly, if one defined Cartesian substance as 'that which only depends on God's concurrence for its existence,' one would not do full justice to Descartes. But what Spinoza does, in this particular part of the *PPC*, is to explain the Cartesian use of the term with respect to *minor* substances only. This is an idea of substance, moreover, which he could never have regarded as his own. There is no question of hypocrisy; if there was anyone who wanted, even in the *PPC*, to tell the world that he was *not* a Cartesian, it was Spinoza himself!

<sup>9</sup> Andala, *Apologia*, 17–18. Cf. Descartes, *Principles* I, 52, AT VIII-I, 24–25 and Spinoza, *Principia Philosophiæ Cartesianæ* [PPC], II, definition 3. Andala compares the case to the discussions between Thomists and Scotists on the question of the univocity of being. Cf. *Apologia*, 19–20.

<sup>10</sup> *Ibid.*, 21.

<sup>11</sup> *Ibid.*, 7–16.

This, on the other hand, does not mean that Spinoza's own idea of substance was not based on a Cartesian type of analysis. In fact, as Andala's summary indicates, it was by deviating from Descartes on a seemingly minor, but in fact very significant point, that Spinoza, in the first book of the *Ethics*, felt obliged to do away with all other substances but God. Rethinking the notion, Spinoza—'perversely', as Andala said—redefined the Cartesian term in an equivocal way. In the *Ethics*, God's unique substantiality is deduced from the idea of what it is to be an attribute.<sup>12</sup> Taking into account that according to Spinoza, it is through grasping an attribute that substances are perceived, Spinoza for the rest agrees with Descartes as to the definition of substance. To quote Descartes, a substance is not in need of anything else for its existence (*nullâ aliâ re indigeat*); according to Spinoza, its conception does not need another conception (*non indiget conceptu alterius rei; non indiget cognitione alterius rei*)—which is why a substance, if anything, exists.<sup>13</sup> Spinoza, in other words, really was indifferent to Descartes' cautious inclusion of the word *plane*. And,

<sup>12</sup> According to Spinoza, 'outside of the intellect, the truth of substances only exists in themselves, since they are conceived through themselves.' Cf. Spinoza, *Ethics* I, proposition 8, scholium 2. Yet it is through an attribute that the intellect 'perceives' the essence of a substance, and since 'there can be no two or more substances with the same nature or attribute', it follows that the only clear notion of a substance that we can form is that of a substance which is wholly independent from everything else—which is exactly what Spinoza wants to point out: a substance is independent, exists necessarily and is necessarily infinite. (*Ethics* I, proposition 8, scholium 2) Now, since, according to Spinoza, God by definition has an infinite number of attributes, there is no room for other candidates applying for a position in the category of substance. (*Ethics* I, definition 4 and propositions 5–7)

<sup>13</sup> Descartes, *Principia Philosophiæ* I, 51, AT VIII-I, 24; Spinoza, *Ethics* I, definition 3 and proposition 8, scholium 2, respectively. In the *Short Treatise*, Spinoza only comes up with the idea of substance after having proven God's existence. Nevertheless, it is clear that according to the *Short Treatise* as well, there can be no substance which is determined by something else: 'Datter geene bepaalde zelfstandigheid en is ...' Cf. *Korte Verhandelng* I, chapter 2. Martial Gueroult, in his famous commentary, points to another distinction between Spinoza's conception of substance before and in the *Ethics*: 'Pour maintenir l'univocité, Spinoza (...) avant l'*Éthique*, 9 (...) dénomme substances les choses constituées d'un seul attribut et *Etre* la chose constituée d'une infinité d'attributs, c'est-à-dire Dieu.' Martial Gueroult, *Spinoza I, Dieu (Éthique, I)* (Paris, 1968), 55. Gueroult's idea, however, that a similar distinction is still apparent in the first book of the *Ethics*, between propositions 1–8 on the one hand and subsequent propositions on the other, is misleading, since, in the propositions preceding Spinoza's view of God as the only substance, he is philosophically experimenting with the notion of substance as such, without reference to the number of attributes. Others have mentioned this point before. See e.g. Herman De Dijn, *Spinoza. The Way to Wisdom* (West Lafayette, 1996), 212, note 6 and the references there to A. Doz, who first suggested that Gueroult's analysis was inadequate on this point.

unfortunate though it may be for his intention, Andala's own analysis reveals the similarity of Descartes' view to Spinoza's. Descartes had said that 'there is only one substance which can be understood to depend on no other thing whatsoever, namely God.' Spinoza concludes that, properly speaking—or rather, properly *thinking*—there is only one substance.<sup>14</sup> Andala, accordingly, was never able to convince his Franeker Neo-Aristotelian adversary Johannes Regius (1656–1738), who simply maintained that Descartes had been the herald and true architect of Spinozism.<sup>15</sup>

## II. *Extended Substance*

But let us leave Franeker for a moment and turn our attention to Groningen. In 1724 the Swiss theologian, philosopher and mathematician Jean-Pierre de Crousaz (1633–1748) was appointed at Groningen as one of two professors given the task to resume the teaching of experimental philosophy in Johannes Bernoulli's spirit. That same year, De Crousaz delivered a lecture *On the Origin of Progress in Physics* in which, curiously, he argued for a more rationalistic methodology in physics. The practice of physics and the incomparable work of the Royal Society and its French counterpart had proven that human reason often is too quick in drawing scientific conclusions from experimental data. The great dividing line for De Crousaz, however, was not between what we like to label as rationalist and empiricist schools of thought, but between the ancients and the moderns. De Crousaz acknowledges that 'even Descartes himself' had his faults. He had been liable to scientific impatience and had mistaken verisimilitudes for truth. Still, according to the Swiss philosopher, Descartes was to be classed within the same scientific camp as his great British 'admirer', Isaac Newton.<sup>16</sup>

<sup>14</sup> Cf. Descartes, *Principia Philosophiæ* I, 51, AT VIII-I, 24, quotation from CSM I, 210.

<sup>15</sup> Andala and his colleague Johannes Regius fought over various theological and philosophical questions, such as, from 1686 onwards, over Herman Alexander Röell's defence of reason in religion; from 1712 over the extent to which man depends for his actions on God; and, from 1714 onwards, over Descartes and his radical followers. With regard to this last question it was Regius' *Kartezius Spinoza voorlichtende* that started the debate, after which came Andala's *Apologia* and Regius' *Cartesius verus Spinozismi Architectus*. Cf. S.H.M. Galama, *Het wijsgerig onderwijs aan de Hogeschool te Franeker 1585–1811* (Franeker, 1954), 149–150 and 72–74 respectively. See also: Israel, *Radical Enlightenment*, 482–485.

<sup>16</sup> Joh. Petrus de Crousaz, *De Physicæ Origine progressibus, ejusque tractandæ methodo*

Jean-Pierre de Crousaz was not insensitive to the need of experimental precision. However, he had other concerns. In our time, he wrote, philosophers are too easily inclined to overlook the question of the evidence for their ideas.<sup>17</sup> Physics is a tentative enterprise, seeking to explain the origins of what we experience. It does so by conjecturing possible causes on the basis of simple ideas.<sup>18</sup> What we must guard against is not just experimental inaccuracy, but also conceptual confusion. Hence De Crousaz, instead of discussing specific theories of physics, went on to criticize developments in contemporary metaphysics.

The most basic metaphysical assumption in physics, according to De Crousaz, is the interpretation of bodily matter as extended substance. He shows himself to be a creative type of Cartesian. De Crousaz argues that defining matter as extension does not mean that one is obliged to take up a final position in the ongoing debates about the possible existence of empty space. Indeed, the term 'extension' may refer both to immovable and penetrable space and to solid movable bodies. He goes on to say that even Cartesians will have to agree that, in the definition of body, 'the notion of solidity must of necessity be joined to the idea of extension', and De Crousaz managed to give a typically Cartesian argument for this, since both aspects of extension 'are equally within the mind.'<sup>19</sup>

Where philosophy tends to go astray, however, is in the way philosophers deal with the idea of extension as the *attribute* of bodily *substance*. For a problem seems to arise when the term 'extension' occurs in the definition of the attribute as well as the substance. Or, as De Crousaz put it: '*Extension*, however, is the *Attribute of Cor-*

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*breviter & in genere. et de Corpore Essentia in specie Philosophica Prælectio* (Groningen, 1724), 11–12.

<sup>17</sup> *Ibid.*, 15: 'Quamobrem iis quæ docet Experientia inprimis attendendum esse contendo, sed addo, haud negligenda esse ea quæ Idearum simplicium evidentia, & ex illis ideis Consequentia evidenter & necessario deductæ, vera esse declarant & necessariò vera.'

<sup>18</sup> *Ibid.*, 15–16: 'Naturæ rerum cognoscendæ adjiciens animum tentat nempe quid possit, experitur quid vires suæ valcant, quid humeri ferre queant. Si mens sua suppeditare & è sinu suo eruere ideas potis sit, quæ Causis effectuum qui in sensus occurrunt patefaciant, Causas primò apertè possibles, & quas insuper, ex combinatione circumstantiarum, non modo possibles, sed veras & reales esse liceat concludere, finem suum erit Vir Physicus assequutus; Si verò ad tales ideas assurgere non valeat, non tamen protinus naturam ipsam humanam accusabit, & æternis tenebris devotam inferet, sed compertis acquiescens, obscura quæ supersunt, aut à se, aut ab aliis, successu temporis, elucidari posse sperabit.'

<sup>19</sup> *Ibid.*, 19 and 20.

*poreal Substance* which from time immemorial has been defined as *Extended substance*.<sup>20</sup> ‘Time immemorial’ would in this case mean some seventy-five years, since before Descartes the attribute of extension had never been thought of as that which would grant material objects their substantiality. The example demonstrates to what extent the categories of a philosophy that had only recently been labelled ‘new’ had already become standard.

De Crousaz devoted the remainder of his lecture, which covers more than half the text, to the conceptual paradoxes that had arisen out of the new, let us say ‘Cartesian’, way of thinking about ‘substance’. According to De Crousaz, these paradoxes are fossils of Scholastic metaphysics. For instance, he weighs Leibniz’ idea of the existence of individual *monads* against the idea of *substantial forms* in Scholasticism. Both notions are meant to provide an answer to the mystery of the origin of individual substantial unities. For why is it that substances exist separately without falling apart? The idea is that, indeed, they would fall apart *in pulverem* if they lacked a metaphysical agency such as a monad or a substantial form. This argument, however, struck De Crousaz as a clear example of scientific impatience:

seeing that they are incapable of explaining bodily phenomena, or at least hindered from doing so, they arrive at I do not know what type of ‘Substances’ which are to count as the all too hastily invented sources [*parentes*] of qualities and properties.<sup>21</sup>

De Crousaz would rather acknowledge his ignorance concerning the causes of material unity than posit new metaphysical alternatives to the Aristotelian forms:

As for me, I would rather simply and plainly admit ‘I am at a loss to explain the unity of bodies’, than say, ‘Monads are the causes of unity’; [for] what these Monads are escapes me.

To find ‘the basis of bodily essence and the pillar of Solidity’ requires a step-by-step investigation and no headlong rush.<sup>22</sup> De Crousaz thus seems to argue in favour of careful experimental analysis in order to find what Locke would call the Real Essences of things, that is the hidden inner structure of natural bodies. Surprisingly however, he has other things to say about Locke. Indeed, he brings forward more or less the same charges against this ‘very famous philosopher’ that he had issued against Leibniz.

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<sup>20</sup> *Ibid.*, 21.

<sup>21</sup> *Ibid.*, 34.

<sup>22</sup> *Ibid.*, 32.

According to De Crousaz, the excellent Englishman is no less haunted by intellectual remains of the old, Scholastic philosophy. As a result of habit and haste, Locke had mistakenly supplanted the Aristotelian concept of natural bodies made up of matter and form, by a new concept, in which another, but again twofold structure occurs, now with 'extension' as the attribute and a fresh, but no less unclear notion of 'substance' as its metaphysical substratum.<sup>23</sup> Locke's problem with the notion of substance arises from the fact that he takes 'substance', which is a universal term for the vague idea that we ourselves apply to a variety of singular things, to refer to something that really exists independently of ourselves and of which we think that it has the 'property' of being extended. This, according to De Crousaz, is a clear instance of mistaking a conceptual distinction for a real one. Making only a slight variation on Descartes' own example in the *Principles of Philosophy*, he explains that just as there is no number which is a 'number' in general, apart from 'this or that particular number', there neither exists a substance which is not 'this or that substance'.<sup>24</sup>

De Crousaz wrote *De Physicæ Origine Progressibus* as a warning to the learned men of his age not to let the project of the new philosophy go amiss as a result of overhasty conjecture. If someone would hold that 'Body is a being subsisting by itself in an extended way,' he would speak the truth. But it would be wrong to conclude from this that there are three things: being, substance and extension, which together form a body.<sup>25</sup> Experimentally inquiring into the make-up of physical nature, we must still keep our ideas as clear as possible. De Crousaz saw it as his task to safeguard the new type of physical inquiry that had started with René Descartes. Although willing to add further sophistications to Cartesian substance-theory,<sup>26</sup> he used

<sup>23</sup> *Ibid.*, 40–41. For a similar analysis of Locke's concept of substantiality, see my own "Something, I know not what." The Concept of Substance in Early Modern Thought', in: Lodi Nauta and Arjo Vanderjagt (eds.) *Between Imagination and Demonstration* (Leiden, 1999), 365–393.

<sup>24</sup> *Ibid.*, 43–44. 'Number' is also René Descartes' favourite example of a universal. Cf. *Principia Philosophiæ* I 58, AT VIII-I, 27 / CSM I, 212. Instead of distinguishing between 'number' in general and particular numbers, Descartes, however, usually refers to the distinction between the number and things numbered. See also: *Le Monde* Ch. 6, AT XI, 36 / CSM I, 92; *Principia Philosophiæ*, II, 8, AT VIII-I, 44–45, CSM I, 226.

<sup>25</sup> Cf. *ibid.*, 45–46.

<sup>26</sup> For example by emphasizing the need for a clear notion of solidity, and by introducing a separate idea of individual substantiality in relation to the question of the permanence of individual bodies. For the latter, see: De Crousaz, *De Physicæ Origine*



typically Cartesian imagery and developed arguments against Locke and against Leibniz which can be found literally in the *Principles of Philosophy*.<sup>27</sup>

### III. *Physics and Morality*

The relevance of Cartesian ideas for De Crousaz was not restricted to epistemology. The same type of creative Cartesianism of his 1724 lecture reoccurs in the *Essay sur le Mouvement*, in which De Crousaz discusses the physics of motion and its metaphysical repercussions. Physics, according to De Crousaz, offers us a confirmation of God's omnipresence, since the communication of movement is verifiably linked to the immovable will of a supreme intelligence. God's wisdom is evident from the fact that there is no accumulation of motion in the universe: in every collision, motion is propagated proportionally.<sup>28</sup> However, De Crousaz does not want to go so far as to say that there is a constant absolute quantity of motion. To say so would be to affirm more than we really know.<sup>29</sup>

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*progressibus*, 22–23: 'Quæcunque existunt in duas Classis distribui mihi posse videntur: Alia enim *Existentiam* sibi habent *propriam*, existunt seorsim & separatim (...) Alia verò non existunt seorsim & separatim (...) Realitates quas prima Classis continet *Substantias*; Quas secunda complectitur *Attributa*, *Modos*, *Accidentia*, nominare liceat.' De Crousaz here uses the example of a piece of wax, which may be regarded as a 'substance', and the spherical form that may be seen as its 'mode'. Even so, the distinction is of no ontological consequence. In his *Essay sur le Mouvement*, De Crousaz seems perfectly at ease, at least as far as motion is concerned, to stick to the Cartesian idea that reduces all material individuality to a question of spatial contact. Cf. Jean de Crousaz, *Essay sur le Mouvement où l'on traite de sa Nature, de son Origine, de sa Communication en general, des Chocs des Corps qu'on suppose parfaitement Solides, du Plein & du Vuide, & de la Nature de la Reaction* (The Hague, 1728), 108–109: 'Le corps rencontrant & le corps rencontré s'unissent en une seule masse; car chaque corps est composé d'une infinité de substances, dont chacune a son existence à part; mais des substances composent *un seul tout* par le *contact* & par le *repos* où elles sont l'une à l'égard de l'autre.'

<sup>27</sup> See, for instance, his use of the example of the piece of wax in footnote 26, above, and below, note 34. Descartes' arguments foreshadowing De Crousaz' attack on Leibniz and Locke may be found in: Descartes, *Principia Philosophiæ* I, 63, AT VIII-I, 30–31 / CSM I, 215 and *Principia Philosophiæ* II, 9, AT VIII-I, 45: 'sed cùm substantiam ab extensione aut quantitate distinguunt, vel nihil per nomen substantiæ intelligunt, vel confusam tantùm substantiæ incorporeæ ideam habent, quam falsò tribuunt corporeæ.' Cf. CSM I, 226–227.

<sup>28</sup> De Crousaz, *Essay sur le Mouvement*, 102–103: 'Il a fallu que la manière d'être du premier [corps] devint d'autant moins successive que celle du second le devient plus.'

<sup>29</sup> *Ibid.*, 104–105.

The idea that ‘substances’ in mutual contact and in a relative state of rest may be regarded as ‘un seul tout’, provides us with the possibility to add up masses and trajectories, and thus to illustrate mathematically how the original ‘quantity of movement’ is conserved upon impact.<sup>30</sup> The type of elementary calculations that De Crousaz here offers may well have been typical for the way in which a *Professeur de Mathématique* at Groningen applied mathematics to physics. We should not forget how uncommon it was for university students to be introduced to the art of dealing with numbers that represent masses, speeds, trajectories and momentum.<sup>31</sup> At the same time, for De Crousaz the question of the communication of motion was in no way confined to algebraic computation. Although he criticized Newton’s concept of ‘reaction’,<sup>32</sup> he accepted his notion of force. Indeed, De Crousaz found it crucial to argue that spatial movement involves a genuine type of activity: ‘changer de place est un *état actif*.’ This activity is meant to explain why a body’s spatial displacement is in itself capable of moving another body; *changer de place*, in other words, is the same as *déplacer*. But the reason why De Crousaz attached so much importance to this point is that he wanted to rule out the possibility that movements are mere ‘occasions’ or, in other words, ‘apparent’ rather than ‘true, immediate and real causes’.<sup>33</sup>

Just as he had done in his 1724 lecture on the progress of physics, De Crousaz here again calls into question a new theory of metaphysics that threatens to cast shadows over newly developed ideas. This time, however, it is occasionalism that he criticizes. The *subtilités Metaphysiques* introduced by the theory of occasionalism are expressed in only too vague and very equivocal terms. In fact, the idea that created beings cannot bridge the infinite metaphysical gap between the states of non-existence and existence—true as it may be

<sup>30</sup> *Ibid.*, 108–113.

<sup>31</sup> Note that the Groningen University curators appointed De Crousaz in 1724 with the specific intention of reviving experimental philosophy in the spirit of Johann Bernoulli and that De Crousaz accepted his professorship in Groningen on 17 October 1724 with an oration entitled *De Logicæ cum Physica, & Matheseos cum utraque de utriusque cum mathesi reciproco nexu*.

<sup>32</sup> The idea, according to De Crousaz, was acceptable as an instrument for calculation, when interpreted to imply that a body might give as much of its ‘rest’ as it receives of the other bodies’ motion. The concept of ‘reaction’ in itself, however, does not refer to anything imaginable and should therefore be avoided. De Crousaz, *Essay sur le Mouvement*, 110.

<sup>33</sup> *Ibid.*, 106.

in itself, since only God creates *ex nihilo*—is, according to the Swiss professor, not at all relevant to the question of movement. It is only substantial changes that created beings cannot bring about. But as far as movements are concerned, these only imply modal changes, such as the changes of shape that I can give to a piece of wax in my hand.<sup>34</sup> Indeed, in the fullness of the physical universe we would not even be able to find a place for a newly created substance.<sup>35</sup>

As far as De Crousaz is concerned, the occasionalist theory is just as ineffective and superfluous with respect to the question of causality as Leibniz' theory of monads and Locke's idea of an unknown substratum were excessive in relation to the question of substance. Again he plays down the excessive use of metaphysics in favour of a Cartesio-Newtonian view of the world. With respect to occasionalism, however, De Crousaz had an extra purpose in doing so. The 'inconveniens du système des causes occasionelles' included dangerous consequences with regard to morality. According to De Crousaz, excluding all activity from secondary causes could be done for two very different reasons. It was quite alright for philosophers to make use of this idea in order to stress their fear and love of an almighty God. However, if they use occasionalist ideas to emphasize total physical dependency, in which only passivity rules in the form of 'un entraîne-ment par une suite infinie de mouvements, tous nécessaires,' they encourage immorality and the attitude to turn away from divine law and conscience.<sup>36</sup>

De Crousaz accordingly stresses that there is a 'real force' present in all communication of movement, even in the billiard-ball type of collisions which he discusses in his *Essay sur le Mouvement*. For if causality is lost with respect to moving bodies, we will end up with a universe in which all occurrences are 'automatic' and in which there are 'autant de miracles que des mouvemens'. The colours in which De Crousaz depicts a universe lacking all activity of created substance are as much applicable to Spinozist theory as they are to occasionalism itself: once people begin to believe that human freedom is merely apparent, they will morally degenerate. De Crousaz, however, associates such determinism in the first instance with occasionalistic thinkers, whom he characterizes as 'the greatest of pyrrhonists'. They regard the Supreme Being as the author of the moral order as well

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<sup>34</sup> *Ibid.*, 114–115.

<sup>35</sup> *Ibid.*, 116.

<sup>36</sup> *Ibid.*, 116–118.

as of nature and see the universe as a network of machines that 'seem to act, but do not really act', merely moved by a God who does so out of necessity.<sup>37</sup>

More than eighty years after Gisbertus Voetius had warned that the acceptance of Cartesian philosophy would lead to the disappearance of substantiality and individuality, to problems regarding the possibility of knowing real essences and to the loss of secondary causality, we see De Crousaz fighting Leibnizian, Lockean and occasionalist ideas that were intended as alternative solutions to Voetius' objections against Descartes.<sup>38</sup> As far as Leibniz and Locke are concerned, De Crousaz argues that their monads and substances are superfluous relics of an Aristotelian past. His reaction to the loss of causal forces, however, is quite different. In this case, De Crousaz and Voetius responded similarly. Both defended an idea of individual activity on the grounds that ethics and religion require a true form of action—*une activité véritable*—and not just its outward, 'mechanical' appearance.<sup>39</sup> The ethico-theological challenge thus remained the biggest challenge for Cartesian philosophy. Both pious Cartesians and modern admirers of Descartes such as Andala and De Crousaz tried to work out an acceptable notion of causality which could work in physics as well as in ethics.

#### IV. Occasionalism and Morals

De Crousaz also fought occasionalism in other contexts, for instance in his famous *Examen du Pyrrhonisme ancien & moderne* against Bayle. 'To act,' says De Crousaz, may well mean 'to give birth to (*faire*

<sup>37</sup> *Ibid.*, 118–120.

<sup>38</sup> Cf. Theo Verbeek, *Descartes and the Dutch. Early Reactions to Cartesian Philosophy, 1637–1650* (Edwardsville-Carbondale, 1992), 18: 'most of the conceptual difficulties Voetius mentions have found expression in the works of later mechanical philosophers. Thus, Voetius warns his readers that if one abandons the concept of substantial forms, one will find it impossible to account for the substantial character of individual being, a position illustrated by the philosophy of Spinoza. He also points out that rejection of the forms abolishes secondary causality, a conclusion reached by Malebranche and Geulincx. Finally, he remarks that it leads to the unknowability of real essences and to the loss of kinds and species, a consequence that was to be discussed by Locke.' We may add that it was Leibniz who tried to come to terms with the disappearance of substantiality by reintroducing a new notion of the individual by means of his theory of monads. For Voetius' philosophical debate with Descartes, see my own book *The Crisis of Causality. Voetius and Descartes on God, Nature and Change* (Leiden, 1995).

<sup>39</sup> De Crousaz, *Essay sur le Mouvement*, 121.

*naitre*) what was not before,' but this does not necessarily imply that every change is a new creation.<sup>40</sup> Indeed, there is no good reason for referring to God with respect to every action: 'and their effects convince me that these are not simply outward *appearances of causes* (...), but that, in effect, they are *real causes*.'<sup>41</sup> Moreover, with respect to free human volitions, De Crousaz adds that although we may not understand in which way our feelings and sensations come about, 'we very well know that we have volitions and that we determine ourselves to have them. We therefore really are active causes and active beings.'<sup>42</sup>

We *feel* that we are free and that we are effective causes and thus we experience within ourselves that there is no basis for occasionalism. De Crousaz can only imagine with horror what would happen to morals, law, virtue, vice, reward and punishment if we were the mere spectators of our deeds. What would happen to religion? Indeed, God would then do everything:

One human thought is the occasion of another, but even with regard to the first thought, it is God who produced it; man is not its author. Whence would his error originate? What punishable thing could there be found in him?

Man, even Adam himself, would be absolutely innocent. God, on the other hand, would be infinitely harsh, letting us suffer for what is not our fault. Such ideas, according to De Crousaz, are a sign of the cynical times in which

all deists and libertines adopt the system of occasional causes; it is their favourite system, they like to think of themselves as machines, that have necessarily and inevitably received all the movements by which they are determined by their Mover.<sup>43</sup>

According to De Crousaz, occasionalism exaggerated God's activity in nature.<sup>44</sup> Like Andala, he clearly distinguishes between Descartes

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<sup>40</sup> Jean de Crousaz, *Examen du Pyrrhonisme ancien & moderne* (The Hague, 1733), 463.

<sup>41</sup> *Ibid.*, 462.

<sup>42</sup> *Ibid.*, 463.

<sup>43</sup> *Ibid.*, 463. On De Crousaz' idea of his own days as heydays of materialism and cynicism, see the Preface of the *Examen du Pyrrhonisme*.

<sup>44</sup> De Crousaz was willing to grant to those whom he called 'the Cartesians' that an opening in the tissue of our skin brought about by a needle is only the *Cause occasionelle* of the pain that accompanies it. There is no 'necessary link' between the one phenomenon and the other. The pain we feel is simply the result of God's arbitrary arrangement of things. God's wisdom, goodness and power is in evidence in the lawlike regularity of such phenomena. God, accordingly, does not remain alert

and the occasionalist philosophers whom he labels as 'Cartesians'. Such a distinction was not uncommon in his day. Some six years later, David Hume would likewise describe the occasionalists as '*Cartesians* [who] have had recourse to a supreme spirit or deity, whom they consider as the only active being in the universe, and as the immediate cause of every alteration in the matter.'<sup>45</sup> Hume and De Crousaz were probably arguing from similar sources. Both the terminology and the arguments De Crousaz uses when summarizing the occasionalist position indicate that, like Hume, he knew the work of French occasionalists who had revitalized the medieval argument against the possibility of a communication of modifications from one substance to another.<sup>46</sup> De Crousaz may have studied French occasionalism either in Switzerland or by reading Bayle's *Dictionaire*. In any case, his prime motive for rejecting the philosophy of the *causes occasionelles* was that he believed it was incapable of offering an acceptable account of man's moral responsibility. Though God gave the universe its law-like regularity, He is not to be held responsible for the evil occurring within it. As such, this question was just as relevant to the Dutch philosophical environment as it was to the French, in which the 'Cartesians' were represented in particular by Spinoza and by an 'occasionalist' of a different type, Arnold Geulincx.

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to everything that happens in the universe once he has established His laws. Cf. De Crousaz, *Examen du Pyrrhonisme*, 462. Nonetheless, De Crousaz argues, all this should not be thought to have any repercussion for the causal efficacy of our free will, the existence of which is intimately known to us all.

<sup>45</sup> David Hume, *A Treatise of Human Nature*, ed. L.A. Selby-Bigge and P.H. Nidditch (Oxford, 1978), I, 3, 14, 160.

<sup>46</sup> Malebranche, for instance, had argued that, even if it existed in a body, a moving force could not be communicated since 'it would be a *mode* of their substance, and it is a contradiction that modes go from substance to substance.' Quoted in: Daisie Radner, *Malebranche. A Study of a Cartesian System* (Assen, 1978), 16, from which I borrow the translation. A similar argument had been put forward by the Mutakallimûm in the Islamic tradition, from which it had entered Western thought through Maimonides and Aquinas. Cf. J.A. van Ruler, 'New Philosophy to Old Standards. Voetius' Vindication of Divine Concurrence and Secondary Causality', in: *Nederlands Archief voor Kerkgeschiedenis* 71 (1991), 58–91, 80–81. Other occasionalist philosophers also made use of the argument. See, for instance, Andreas Scheib, *Zur Theorie individueller Substanzen bei Géraud de Cordemoy* (Frankfurt a.M., 1997), 213: 'Daß ein Körper sich bewegt bedeutet nur, daß er sich im *Zustand* der Bewegtheit befindet. Die Bewegungszustände individueller *corps* sind nicht übertragbar. Es ist deshalb unzulässig anzunehmen, daß ein Körper die Bewegtheit, die nur ein Zustand ist, einem anderen Körper mitteilen kann.'

## V. Geulincx Muzzled

Arnold Geulincx must have had quite an audience at the end of the seventeenth and the beginning of the eighteenth century. His *Ethics* was published in at least eight editions: five in Latin and three in Dutch.<sup>47</sup> We know that there were Cartesian *dominees* encouraging others to study Geulincx' works.<sup>48</sup> Moreover, his early eighteenth-century opponents in their publications assure us that the extent of Geulincx' readership was getting out of hand.<sup>49</sup> Indeed, Andala had been infected by the Geulincx-virus himself. The modern reader is left with the impression that his whole project of anti-Geulincx dissertations was the result of his uneasiness about having accused others, most notably De Volder, of Spinozist tendencies and not having been able to purge himself of his one-time fascination.<sup>50</sup> However, the moment of truth had come. Andala had to expose Geulincx as a perversion of Descartes, even if this meant doing harm to others: 'My

<sup>47</sup> Arnold Geulincx, *Opera Philosophica*, ed. J.P.N. Land (The Hague, 1891–1893) / *Sämtliche Schriften*, ed. H.J. de Vleeschauwer (Stuttgart-Bad Cannstatt, 1965–1968), I, xvii–xviii. There was indeed a 1690 Dutch edition, which Land had only read about. A copy is available in the University of Amsterdam library.

<sup>48</sup> It was Johannes van Aalst and Paulus Steenwinkel for instance, who incited Antonius de Reus' many translations of Geulincx' works into Dutch. Cf. Arnold Geulings, *Geestkunde en Wereldkunde* (Dordrecht, 1696), 3–4.

<sup>49</sup> Carolus Tuinman was worried about the fact that both the Latin and the Dutch editions of Geulincx' works were now read 'with respect and great relish'. He would rather these books had never been translated, especially since libertinism was rearing its head in Zeeland. Cf. Tuinman, *Geulinx Medemaat van Spinoza*, in: Tuinman, *De liegende en bedriegende Vrygeest*, 3 and 47–48. Right at the start of his *Examen*, Ruardus Andala also hints at Geulincx' public esteem: 'Si mireris, Benevole Lector, quod animum induxerim *Ethicæ Geulingianæ*, à tot Viris Eruditissimis, Clarissimis, Orthodoxis simul & Pijssimis laudatæ, commendatæ, eximijsque elogiis ornatæ ...' Cf. Andala, *Examen*, Præfatio ad Lectorem. This made Andala's task a burden. See *Examen*, 23: 'Nec mihi persuadeo defore plurimos, quibus etiamnum hoc meum institutum improbat; nec sane ipse sine dolore animi hoc aggredior.'

<sup>50</sup> Andala, *Examen*, 25: 'Fateor, Auctorem ingeniosissimum me quoque in suam sententiam de Deo non colendo intuitu renumerationis, de abdicanda cura propriæ salutis, pertraxisse, eamque A. [1684] pro gradu consequendo disputantem in Corolariis positam defendisse; brevi tamen tempore post Theologicis studiis unice intentum retractasse & abdicasse. Quin & profiteor, me *Theologiam Naturalem* ante aliquot annos scribentem sensu sano admisisse *Geulingianas 7 obligationes*; quando nondum observaveram, ipsum illas velle habere pro norma & regula universa vivendi & moriendi.' Andala seems to have been troubled by his censure of De Volder, who proved to be so magnanimous as to meet his objections. Cf. Andala, *Examen*, 23 and *Apologia*, 6.

conscience urges me to do so. God called me in my youth and bound and obliged me to this task by an admirable act of His providence towards me.<sup>51</sup>

The scheme seems to have worked. After Andala's onslaught, no further editions of Geulincx' *Ethics* appeared for nearly two centuries. Like Carolus Tuinman, Andala set out to unmask Geulincx as an associate of Spinoza and to warn Christian readers against the subtle novelty of Geulincx' reinterpretation of religion. Andala had himself once fallen for Geulincx' majestic doctrine *de Deo non colendo intuitu remunerationis*: not to honor God for one's own benefit. He now challenged this standpoint with all the arguments available based on common sense and Scripture. Why should we not beg God for salvation? Is not our own free will directed towards the good? Did not God Himself give us our natural desire to strive for beatitude and bliss? Did not the Apostle urge the Philippians to 'work out your own salvation with fear and trembling' (Phil. 2: 12)? Do not reason and Scripture alike encourage us to search for the good and avoid what is harmful? Is not every object and organism in nature built for survival?<sup>52</sup> In short: God wants us to seek our own salvation! Andala offers a rather perverse mixture of biological and sanctifying incentives to prove his point. He does not make any effort to distinguish between the ideas of a self-centered life and a life of blessedness, a distinction that was as fundamental to Geulincx as it was to Spinoza. But then, careful analysis of Geulincx' standpoints was never part of Andala's strategy. As Herman De Vleeschauwer has argued, 'it is very seldom that [Andala] penetrated to the heart of the thoughts of Geulincx and all his objections ultimately resolved themselves into the opposition of his personal views to those of Geulincx.'<sup>53</sup>

<sup>51</sup> *Ibid.*, 24.

<sup>52</sup> *Ibid.*, 43–50.

<sup>53</sup> H.J. De Vleeschauwer, *Three Centuries of Geulincx Research*. Mededelings van die Universiteit van Suid-Afrika / Communications of the University of South Africa (Pretoria, 1957), 27. De Vleeschauwer further argues: 'It would definitively not be worth while to give a catalogue of all the objections. [Andala] always accused Geulincx that his views were in opposition to those of the Bible and that he undermined religion, that his system was in opposition to the evident tenets of the eternal christian ethics, that Geulincx saw only a vague difference between good and evil, that he often contradicted himself, etc., etc. These objections can be reduced either to clear misconceptions on the part of Andala or to a onesided urgency of terminological deviations or to apparent deliberated misunderstandings caused by the mala fides and the pugnacity of the critic.'



Not only that: Andala's attempt was also to relate Geulincx as closely as possible to authors whom the general public had already accepted as heterodox writers and atheists. And here, in fact, he had a point. For the other side of Geulincx' doctrine that we should not worship God in order that He might pay us back, was because the afterlife played no role in his ethics. Andala emphasizes that God does not castigate His flock or bestow His grace without reason: He does so in order to bring mankind to worship Him. In order to convert us, God gave out a warning and announced that the day of Judgement will come. Geulincxian 'indifference' does not allow for any type of Divine repayment and thus conceals the impious intentions of Frederik van Leenhof and Spinoza, who try to take away all anxiety concerning sin.<sup>54</sup>

Indeed, if there is one aspect binding all great Dutch Cartesian moralists together, it is their reinterpretation of religious inspiration in the context of this world, not the next. As advocate of the orthodox, Andala clearly had no concern for a *Heaven on Earth* and significantly argues that no one 'if not a follower of Spinoza, or maybe Fr. Leenhof, or W. Deurhoff. &c.' can assent to Geulincx' 'absurd' and 'ungodly' opinions.<sup>55</sup> However, grouping Geulincx together with those who, by 1716, were already publicly condemned, Andala does not return to the more significant question he had started off with in the preface of his *Examen*: Geulincx' relationship to Descartes.<sup>56</sup>

## VI. *Storm at Sea*

Born within a mile of the ships that visited Antwerp's harbour, and a citizen of the Northern Netherlands from 1658, Arnold Geulincx also knew about sea-trade. Like Herman Witsius, he was sufficiently

<sup>54</sup> Andala, *Examen*, 54–55. Affinities between Geulincx and Frederik van Leenhof, the author of *A Heaven on Earth*, or *Den Hemel op Aarden; Of een korte en klaare Beschrijvinge Van de Waare en Standvastige Blydschap* (Amsterdam, 1704), were also noted by others both in Holland and Germany. See: Michiel Wielema, *Ketters en Verlichters. De invloed van het spinozisme en wolffianisme op de verlichting in gereformeerd Nederland* (Amsterdam, 1999), 102 and Israel, *Radical Enlightenment*, 434–435, 543 and 635.

<sup>55</sup> Andala, *Examen*, 43.

<sup>56</sup> See also: De Vleeschauwer, *Three Centuries of Geulincx Research*, 27: 'His main purpose was always to show how far Geulincx had deviated from Descartes and how those deviations all lead to Spinoza and Spinozistic views. Apparently Andala soon lost sight of the aim of his work as expressed in the preface. Nowhere did he attempt to investigate the relation between Geulincx and Descartes. He was continually interested in the relations between Geulincx and Spinoza.'

impressed by the century's sea-faring business to borrow an image from it in a philosophical context. Like Witsius, he could vividly imagine the risks a skipper has to take. In Geulincx' metaphor, a ship is 'suitably prepared, perfectly equipped, and [sets] sail for India'; but then 'it sinks in a storm, or is taken by pirates.'<sup>57</sup> The different ways in which the analogy operates in Witsius and Andala on the one hand and Geulincx on the other, are indicative of their conflicting theological views.

Geulincx used the image of the shipwreck in order to explain his theory of divine punishment, or the sanction of sin. According to Geulincx, there is not one type of punishment for sin, or *poena peccati*, but as many as there are ways of sinful behaviour. Sin in general is nothing but *amor sui*, self-love, or 'worldly concern' (*sollicitudo seculi*). It goes hand in hand with great sadness and anxiety, since we strive for what we do not have without any reassurance of that we may obtain it. Hence we tend to develop a 'worldly knowledge' of cunning, slyness and dirty tricks in order to obtain the means that may lead to our ultimate comfort and satisfaction. If we are not careful, such behaviour will make us the unhappy slaves of our passions, since we will do anything to ward off what may frustrate our plans. However, frustration is inevitable: 'The ship was suitably prepared, perfectly equipped, and set sail for India—but it sinks in a storm, or is taken by pirates.'<sup>58</sup>

Geulincx used the image of the loss of a ship in a straightforward way, whilst Witsius and Andala used it only as an allegory of the Republic of Letters which, according to them, was sinking to ever deeper levels. Yet there is a more significant difference between Geulincx' interpretation of trouble at sea and that of Witsius and Andala. While the moral of the latter is that bad stewards call their misfortune upon themselves, in Geulincx' reasoning there is no question of being able to avoid misfortune. Life comes with all sorts of disasters and afflictions. The way of wisdom is not to try and avoid them by worshipping God in the hope that He may help us. According to Geulincx (and Spinoza), the way of wisdom is rather to learn to change one's attitude in life.

It is in this way that Geulincx and Spinoza recall a central theme of Stoic philosophy. Both authors were very critical of Stoicism and brought forward a variety of arguments against it. Nevertheless, it seems that Andala was not wholly mistaken to spend a lot of ink in his attempts to prove the affinity of Spinozism and

<sup>57</sup> Geulincx, *Ethica* V, §9, *Opera* III, 134.

<sup>58</sup> *Ibid.*, 133–134.

Stoicism.<sup>59</sup> I shall not discuss the relation of Geulincx and Spinoza to Stoicism. What concerns us here is the question why Descartes gave rise to the quasi-Stoic revival which occurs in their works and in that of other Cartesian champions of ‘indifferentism’.

### VII. *Nature and the Mind*

According to Geulincx, one of the particular virtues which we should cultivate with regard to God, is prayer. Praying to God forms part of our act of adoration. But the interesting thing about Geulincx’ interpretation of prayer is that he expressly says that ‘we should never plead with God for anything else but that we may execute our obligations.’<sup>60</sup> In as far as it is a request, prayer can only be a request to the Almighty that we may be strong enough to fulfil His wish. Geulincx does not answer the question of whether through prayer, God will help us by making us strong enough, or whether we only pray in order to meditate on our own obligations. In fact, however, this comes down to the same thing. In Geulincxian terms, if God gives us what we need in return for prayer, it would mean nothing more than that we would indeed be strong enough to accept anything that might happen to us and thus be blessed by Him. The question is comparable to the question of God’s reciprocal love for us, which occurs in both Geulincx and Spinoza.<sup>61</sup> Geulincx’ account of prayer fits in well with his general idea that we should not worship God for our own sake. Andala, however, has only scorn for it: ‘If it is not allowed to want to be free from calamities and misery, then (...) there is no place for prayer or for thanksgiving.’<sup>62</sup>

<sup>59</sup> Andala, *Apologia* II, 61–110: ‘In qua collatio instituitur inter Stoicismum & Spinozismum, simulque puritas Philosophiæ Cartesianæ ostenditur.’

<sup>60</sup> Geulincx, *Ethica* II, §9, *Opera* III, 85.

<sup>61</sup> *Ibid.*, 64: ‘Cum te dereliquisti, eum amare cepisti, qui est Omnipotens; ille te redamat (nec enim aliter potest ille generosus) quam felix es! Tu amas illum Amore Obedientiae (hoc unum potes); ille te redamat Amore benevolentiae ac beneficentiae, (nam et ipse hoc unum erga te potest).’ See also Geulincx, *Ethica* V, 1, *Opera* III, 121–122; Spinoza, *Ethica* V, proposition 36 and, in general: Han van Ruler, ‘Kennen, lijden, handelen. De erfenis van Descartes bij Geulincx en Spinoza’, in: *Mededelingen vanwege Het Spinozahuis* 82 (2002).

<sup>62</sup> Andala, *Examen*, 69. The issue is debatable, but although Andala’s idea of prayer is closer to everyday Christian practice, Geulincx’ view may in fact be much closer to that of someone like St. Augustine. Cf. e.g. Aurelius Augustinus, *Confessiones* XIII, XXVI, 41. Putting things as sharply as he does, however, Geulincx’ notion of prayer could have easily got him into conflict with common sense ideas of devotion.

Geulincx argues that in the *Lord's Prayer* nothing is asked for but that we may stand strong. He adds that he might have said more on the subject had it been his job to do so.<sup>63</sup> It would have been helpful if he had explained himself a little further. By reciting the *Lord's Prayer*, Christians worldwide ask for their daily bread. Should we interpret this in a metaphorical way, for instance as a request for 'spiritual bread'? Or should we rather interpret this part of the prayer as an encouragement to fulfil what according to Part I of Geulincx' *Ethics* is meant by 'ethical obligations': the moral duty to accept life's necessities in gratefulness? Whatever the answer, it is clear that Geulincx believed prayers cannot be regarded as requests to God to deliver upon demand. It was Cartesianism's credit to have supplied a view of the world in which the relation of God to the rest of the universe provided the basis for a different and more philosophical idea of Divinity and of religion. The Cartesian God will not act upon our prayer by entering into the world, changing things around, and supplying what we asked for.

Indeed, in the first instance Cartesianism is, for Geulincx, a description of the human condition. Here we are: minds, aware of the mechanical universe in which we live and which we experience through the workings of one particular mechanical device, our body. It is thus through sensations and emotions that we experience God's world. Our situation is not always comfortable, since there are as many unhappy as there are happy experiences. But what really frees us and can make us blessed, is to understand that we should, at least at a certain age, stop striving for the most comfortable situations. We are in God's world and we will have to yield to what, by His will, will happen: 'The ship was suitably prepared, perfectly equipped, and set sail for India—but it sinks in a storm, or is taken by pirates.' We do not have power over the universe, or we would ourselves be God. We only have power over our minds. Real freedom and beatitude awaits us if we are able to detach the mind from its impressions and accept God's universe not as it is best for us, but as it is in itself.<sup>64</sup>

How attractive the Cartesian theory of the mind, of the mechanical universe and of the nervous system mediating between them was for the Stoically inclined philosopher! Descartes himself had once provisionally accepted the Stoic maxim 'to try always to master myself rather than fortune, and change my desires rather than the order

<sup>63</sup> Geulincx, *Ethica* II, §9, *Opera* III, 85.

<sup>64</sup> For a more elaborate summary of Geulincx' Cartesian ethics, see my 'Kennen, lijden, handelen'.

of the world.<sup>65</sup> His own full theory of ethics was never achieved as Geulincx' or Spinoza's *Ethics* were. But we may safely conclude that it would have come just as close as these to the thought of

those philosophers who in earlier times were able to escape from the dominion of fortune and, despite suffering and poverty, rival their gods in happiness. Through constant reflection upon the limits prescribed for them by nature, they became perfectly convinced that nothing was in their power but their thoughts, and this alone was sufficient to prevent them from being attracted to other things.<sup>66</sup>

Despite his apparent intention in the famous Dedicatory Letter in the *Principes* (1647), and despite the fact that traces of it are obvious in *Les Passions de l'Âme* and in the correspondence, Descartes never quite accomplished the task of systematically drawing a link between his physics and the system of morality that might accompany it. His physics alone, however, had already given rise to theological objection. As early as 1641, Gisbertus Voetius had warned against its implications with respect to God's activity in the universe. While Aristotelian philosophy had been able to account for God's concurrence with natural objects and human beings, it was in no way clear how Cartesian philosophy would deal with issues that were fundamental for theology.<sup>67</sup>

Just over twenty years later, an enthusiastic reader, Willem van Blijenbergh, brought forward the same questions with regard to Spinoza's *Principia Philosophiæ Cartesianæ*. If God not only creates the soul with its movement and striving, but recreates it from moment to moment, how are we to absolve God from bringing evil into the world?<sup>68</sup> All theological and moral questions that had once been solved on the basis of Aristotelian distinctions would have to be reformulated in terms of the new mechanical philosophy. Geulincx and Spinoza did so by taking seriously what the new philosophy taught. They did so with immense consequences for traditional interpretations of religious doctrine. According to them, there is no good or evil to be found either in the world as such or in our awareness of it by way of the mechanical production of sensations and emotions

<sup>65</sup> René Descartes, *Discours de la Méthode*, AT VI, 25. Quotation from CSM I, 123.

<sup>66</sup> Descartes, *Discours de la Méthode*, AT VI, 26. Quotation from CSM I, 124. For references to Lipsius and Seneca as a background to these texts, see Étienne Gilson's commentary: René Descartes, *Discours de la Méthode*, ed. Étienne Gilson (Paris, 1976<sup>3</sup>), 251–253.

<sup>67</sup> Cf. Van Ruler, *The Crisis of Causality*, *passim*.

<sup>68</sup> Cf. Willem van Blijenbergh to B.d.S., in: Spinoza, *Briefwisseling*, ed. F. Akkerman *et al.* (Amsterdam, 1977), 154–156.

in our nervous system. Nature is a given and unchangeable thing. Ethics comes in only with the mind, which we can either allow to be enslaved by our emotions or detach from the information brought in through our senses, and develop in accordance with God's will. It is in the latter way that we may free ourselves, and create our own heaven on earth.

As a result of the activity of writers such as Geulincx and Spinoza, Van Leenhof and Deurhoff, the earlier strategy of the Dutch government collapsed: philosophy and theology could not be kept apart. The new philosophy led to a new philosophical interpretation of religion and the problem for those who wished to keep the new physics alive but found such ethico-religious radicalism unacceptable, was to detach Descartes from Geulincx and Spinoza.

### VIII. *Forces and Concurrence*

Both De Crousaz and Andala greatly admired Descartes' contribution to natural philosophy. Descartes had rejected what Voetius in vain had tried to save: the natures and substantial forms of individual objects. As we have seen, De Crousaz also associated Leibniz' idea of individual monads to the substantial forms of Scholasticism, only to reject both in favour of a quasi-Cartesian concept of matter as extended and solid substance. Ruardus Andala had done much the same thing some ten years earlier, contrasting Descartes' 'clear and perspicuous' notion of extension and its attributes of 'size, shape, place, motion and rest' with the obscure substantial forms of the Aristotelians.<sup>69</sup> As early as 1712, Andala had rejected Leibniz' dynamic monads on the grounds that their acceptance would involve a setback in the progress of 'sane and true' philosophy.<sup>70</sup> Descartes' mechanical system, for all its possible defects, was still an unfinished project. Had not the noble Huygens, despite not following Descartes in every way, defended the Cartesian vortices? According to Andala, it was only a question of refining Descartes' model with the help of new experiments 'until at last a hypothesis will be found which agrees in all respects with everything that happens.'<sup>71</sup>

But if theology in Cartesian hands developed into a system of beliefs that turned away from the ideas of God and nature as they

<sup>69</sup> Andala, *Apologia* III, 115–116. See also: *Examen*, 19–20.

<sup>70</sup> Andala, *Apologia* III, 149–150. See also: *Examen*, 13–14.

<sup>71</sup> Andala, *Examen*, 19.

were traditionally understood, how does Andala come to terms with Cartesian physics from a theological point of view? The curious answer is that he does not seem to come to terms with it at all. As we saw, Jean-Pierre de Crousaz, although doubting the existence of monads and substantial forms, introduced a concept of 'real force' or 'real causes' in order to fight the impious conclusions of what he calls 'occasionalism': 'the *Forces* and *Causes* which [the Prime Cause] has brought into existence are real forces and true causes that act and produce their effect.'<sup>72</sup> It is true that his description of movement as an '*état réel du corps*, or rather, [as] the body itself, existing in a certain way,' brings De Crousaz dangerously close to Spinoza himself,<sup>73</sup> just as his emphasis on the difference between the production of modes and of substances brings him close to the idea of a unique and divine substance, again like Spinoza.<sup>74</sup> But at least De Crousaz' strategy is clear: not only is the Cartesian concept of matter in need of a notion of solidity, the notion of movement also has to have an extra aspect of 'real force' which excludes the idea of God as a substitute for secondary causes and thus leaves room for human freedom.

In Andala's writings we find nothing resembling such an argument. His strategy consists wholly in opposing various apparent differences of opinion between Descartes on the one hand and subversive Cartesians on the other. The Cartesian tradition has been taken over by hypocritical *Pseudo Cartesiani* such as Geulincx and Spinoza.<sup>75</sup> Andala acquits Descartes of having foreshadowed their conclusions not by analysing Descartes' philosophical notions or their possible consequences, but by stating and restating that his conclusions prove him to be orthodox: '*Descartes* very rightly and most accurately distinguished between the mind and the body, between God and the world, or nature, between the Maker and His work.'<sup>76</sup> That is all he does. He confronts Spinoza with Van Blijenbergh's arguments, but

<sup>72</sup> De Crousaz, *Examen du Pyrrhonisme*, 465.

<sup>73</sup> De Crousaz, *Essay sur le Mouvement*, 106. The idea of motion being inherent in matter had by then become a distinguishing feature of 'radical' philosophy. Cf. Israel, *Radical Enlightenment*, 251–252 and index, under 'Spinoza—motion inherent in matter'.

<sup>74</sup> *Ibid.*, 115.

<sup>75</sup> Histories of Cartesianism occur both in the *Examen* and in the *Apologia*. See also Galama, *Het wijsgerig onderwijs te Franeker*, 145: 'In de Inleiding [to the *Examen*] wijst hij als de grootste vijanden van het Cartesianisme de Pseudo-Cartesien aan. Daaronder rekent hij op de eerste plaats Spinoza, die zegt Cartesius' analytische verworvenheden synthetisch te doceren, maar in werkelijkheid een *subdolos et tectus Atheus* is, verder de Volder, Clericus [Le Clerc] en tenslotte Geulincx.'

<sup>76</sup> Andala, *Apologia* III, 94.

contrary to Van Blijenbergh he does not apply them to Descartes.<sup>77</sup> One of the most striking deficiencies in Andala's confrontation of Descartes with Spinoza is his lack of any real interest in the highly relevant theory of the passions. Having contrasted Cartesian definitions of a variety of passions with Spinoza's, Andala writes: 'In order not to be tedious, I will not add more concerning the derivative passions or affects.' If only he had given some thought to Descartes' physicalistic interpretation of the passions and its relation to the idea of Divine Providence. We find nothing on this matter.

Indeed, the only passage that is relevant for Andala's views on the relation between physics and theology is the one in which he discusses Descartes' peculiar use of the term *concur*s:

If you wonder, reader, why the Philosopher has used the word *concur*sus, and not *conservatio*, when discussing the *existence* of things (which pertains to *conservatio*), I can easily respond that the Philosopher often spoke about *concur*sus as including *conservatio*, in as far as it concerns the modes of created things, and especially their activities.<sup>78</sup>

The Philosopher was no longer Aristotle—it was Descartes. And what Descartes had said was enough for Andala instinctively to accept it, even though in this particular case a whole new world view lay behind the expression. Descartes' peculiar use of *concur*sus had been Van Blijenbergh's starting point when he had first suggested the problem to Spinoza that God would become the author of evil if the Cartesian idea of *concur*sus applied to activities as well as to substances.<sup>79</sup> Descartes' odd use of the notion of concurrence had been criticized by Jacobus Revius long before then.<sup>80</sup> Yet Andala accepts on authority what the Philosopher said. No wonder that Johannes Regius made fun of his Cartesian colleague: 'The way in which Descartes often spoke is not the question here, but how he should have spoken'!<sup>81</sup> According to Regius, Descartes should have

<sup>77</sup> *Ibid.*, I, 14–15, 31–32, 39–40.

<sup>78</sup> *Ibid.*, I, 20.

<sup>79</sup> Cf. above, note 66.

<sup>80</sup> Van Ruler, *The Crisis of Causality*, 276–278. Note that Andala's Franeker colleague Johannes Regius would quote Revius' 'Metaph. Repurg. Cap. v. §. 8.' in his *Cartesius Verus Spinozismi Architectus* (Franeker, 1719), 129–130: 'Mira profecta phrasis, substantias existere ope concursus Divini, cum concursus, qua actus Dei, numquam a Theologis vel Philosophis ad rerum essentias, sed ad earum operationes referatur ...'

<sup>81</sup> Regius, *Cartesius Verus Spinozismi Architectus*, 130. Note, however, that despite their doctrinal differences, Andala and Regius seem to have always remained on friendly terms. Cf. Galama, *Het wijsgerig onderwijs te Franeker*, 76 and 150.



distinguished between God's act of conservation, by which He upholds the essences of things, and His act of concurrence, by which He supports their operation. Descartes does not do so, because he is already halfway on the road to Spinozism, according to which God's essence extends itself through His attributes, the modifications of which are the only type of operations that occur.<sup>82</sup>

Aspects of Descartes' philosophy which were at odds with traditional theological doctrine received minimal attention from those who wished to save Descartes from later developments in Cartesianism. Arguing with Bayle, De Crousaz had more to say about divine concurrence than Andala did. But he did not challenge the new Cartesian interpretation of the term. He merely added that there is no real cause for Van Blijenbergh's fears. The Cartesian idea of a continuous creation is nothing more than a 'metaphorical' expression of the fact that God guarantees the prolonged existence of what He once chose to create.<sup>83</sup> How we are to interpret the relation between God's activity and our freedom remains unclear. We should simply stick to traditional ideas of Divinity and morality:

Pour moi j'avoue que je ne saurois comprendre, comment on peut se former une Idée de l'Univers qui satisfasse, quand on regarde tout ce qui s'y passe comme un jeu de marionettes, qui semblent parler & agir, mais dont le Maître, caché derrière le rideau, fait tous les mouvemens. Un tel Ouvrage ne me paroît pas digne de l'Attention, non plus que de la sagesse & de la Puissance du Créateur ...<sup>84</sup>

### IX. Conclusion

Ruardus Andala was the last 'Cartesian' in the Netherlands in the sense that he was the only Dutch professor who in 1720 still stood firm in his defence of the Philosopher against each and every Leib-

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<sup>82</sup> *Ibid.*, 132–133. Regius does not elaborate the point and his interpretation remains rather sketchy. He argues that Descartes saw conservation as a result of concurrence and that the term *conservatio* pointed to a real distinction between the Divine essence and created things, thus implying that Descartes deliberately disguised his proto-Spinozism!

<sup>83</sup> De Crousaz, *Examen du Pyrrhonisme*, 453. In view of the fact that De Crousaz defended the idea of a 'real activity' one might expect that, in accordance with Scholastic doctrine, it was this 'real activity' that God concurs with. De Crousaz, however, does not seem to be aware of this possibility and simply accepts the Cartesian interpretation of the term.

<sup>84</sup> *Ibid.*, 454 ['544'].

nizian, Newtonian or Neo-Aristotelian opponent. As we have seen in the case of Jean-Pierre de Crousaz, Descartes' ideas would continue to be taught into the 1730s. Like Andala, De Crousaz held on to a theory of matter which if anything was Cartesian, and accepted an epistemological position that constituted an intermediate stage between Cartesian conviction and Kantian desperation.

So if Descartes continued to be relevant, why did other schools eventually take over?<sup>85</sup> The answer seems to be that, apart from Andala, most philosophers and theologians agreed with Johannes Regius that Descartes was the true architect of Spinozism. Despite innumerable doctrinal differences, all academics by 1720 at least agreed on one single issue: Spinozism should be rejected. Once Newtonianism could successfully be presented as a system of thought that did not conflict with the Christian world view, no one continued to defend the Cartesian system of philosophy, which had obviously inspired others to formulate unorthodox views. As we have seen, even within the Cartesian camp itself, the widely felt taboo on Spinozism resulted in a strategy of safeguarding traditional religious viewpoints by playing down or evading those particular issues that brought Cartesian physics, or issues related to the physiology and psychology of man, too close to theology. Not only Spinoza, but all 'Cartesians' who, like Geulincx, would link physics to morality, had lost academic and ecclesiastical respectability. Except for Andala, no one cared to take it upon himself to defend Cartesianism as such.

Like Witsius and Geulincx, Johannes Regius also had a taste for shipwreck-analogies. He said that he deemed it his 'duty to show those about to sail on the sea of Cartesian philosophy the sunken rocks it conceals so that they may guard against becoming shipwrecked'.<sup>86</sup> His standpoint seems to have won the plight. After a short period of only one or two generations, philosophers gave up the project of providing a system of physics which, in the ancient tradition of philosophy, could be linked to a philosophy of life. The *dominees*

<sup>85</sup> Taking the Groningen philosopher Nicolaus Engelhard as an example, Michiel Wielema has even argued that Cartesianism was never fully abandoned in metaphysics. M.R. Wielema, 'Nicolaus Engelhard (1696–1765). De Leibniz-Wolffiaanse metafysica in Groningen', in: H.A. Krop et al. (eds.) *Zeer kundige professoren. Beoefening van de filosofie in Groningen van 1614 tot 1996* (Hilversum, 1997), 160: 'Verder kan de verbreiding van het wolffianisme en de permanente aanwezigheid van cartesianisme in de achttiende eeuw worden vastgesteld.'

<sup>86</sup> Johannes Regius, *Beginnelsen*, 352. Translation from: Israel, *Radical Enlightenment*, 482.

had won their pyrrhic victory. Without being as yet outdated in all respects, Cartesianism was abandoned because it did not fit into the complete divorce of natural and moral philosophy which was beginning to emerge and which would captivate the Western mind up to the present day.

## THE EMPIRICIST LOGIC OF IDEAS OF JEAN LE CLERC<sup>1</sup>

PAUL SCHUURMAN

Jean le Clerc was a versatile Remonstrant theologian, encyclopaedist and philosopher. He was born in Geneva in 1657, and after peregrinations in France and England, he settled down in Amsterdam in 1683, where in the following year he was given the chair of philosophy at the Remonstrant Seminary. Until his death in 1736, Amsterdam remained the place where he led a scholarly though not very peaceful existence. His life was marred by accusations of Socinianism and his frequent complaints about his low salary were as bitter as they were futile. The editor of Locke's correspondence, Edmund de Beer, gives us the following lively picture of Le Clerc's character:

Le Clerc made enemies easily. He could be outspoken in his censure of other writers and scholars, apparently orally in mixed company as well as in his writings; as he regarded any censure of his own writings as an attack on his person his disputes degenerated into exchanges of abuse (...) He did not appreciate his limitations of ability or opportunity. He did too much too quickly, applying the facility that was requisite for some parts of his work to other parts where it was out of place. (...) Le Clerc was unwise, querulous, and contentious; more important, he was sincere and conscientious in his duties, and more especially in the quest for truth and in its promulgation.<sup>2</sup>

In spite of his obvious talent for making enemies, Le Clerc became, and subsequently remained, good friends with the affable John Locke, who from 1683 to 1689 lived as an exile in the Dutch Republic. Le Clerc stimulated the already middle-aged philosopher to confide his thoughts to the press. In 1688, Le Clerc used his journal, the *Bibliothèque Universelle*, to publish a French translation, entitled 'Abrégé', of Locke's 'Epitome' of the *Essay concerning Human Understanding*, one year before the complete *Essay* itself was published in its original language.

In 1692 Le Clerc published his *Logica*. This textbook was published together with an *Ontologia* and a *Pneumatologia* by Johannes

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<sup>1</sup> I would like to thank the participants in the *Arbeitsgespräch* on the Early Dutch Enlightenment, held in Wolfenbüttel on 22 March 2001 and my friends Sami-Juhanni Savonius and Craig Walmsley for their excellent and highly useful remarks.

<sup>2</sup> E.S. de Beer (ed.) *The Correspondence of John Locke* (Oxford, 1976–) [Corr.], III, note. 37–38.

Wolters in Amsterdam. The *Logica* is dedicated to Robert Boyle and in the epistle to the reader Le Clerc pays tribute to the 'Epitome' of Locke's *Essay*, to Antoine Arnauld's *La Logique ou l'art de penser* (1662), better known as the *Port-Royal Logic*, and to the *Recherche de la Vérité* (1674–1675) by Nicolas Malebranche. At first sight it is remarkable that Le Clerc places Malebranche's *Recherche* and Locke's *Essay* in the same category of works on logic as Arnauld's *Port-Royal Logic*; and it may seem equally surprising that the 'rationalist' Malebranche is mentioned in the same breath as the 'empiricist' Locke. In this article I shall explore briefly how Arnauld, Malebranche and Locke all belonged to a novel seventeenth-century trend of what can be called a logic of ideas, which was presented as an alternative to the works of traditional Aristotelian logicians.<sup>3</sup> Once this context is in place, I shall continue with an analysis of Le Clerc's contribution to this new logic.

### I. *The New Logic of Ideas*

Representatives of the new logic of ideas shared three basic assumptions. Firstly, ideas are developed in two distinct consecutive stages. In the first stage we must make sure that we start with clear and distinct ideas. These ideas form the basic material for the second stage, which consists of reasoning that in turn terminates in either certain or probable knowledge. Man has a natural capacity for reasoning. Once we take care to reason on the basis of clear and distinct ideas, we can dispense with the artificial and cumbersome syllogisms of traditional logic. Secondly, instead of focusing on the syllogistical formalization of reasoning, the new logic concentrates on prior inspection of the mental faculties prior to final reasoning. Ideas and faculties are closely connected. It is because of our mental faculties that we are furnished with ideas and capable of processing them. Thirdly, in the new logic of ideas there is a preoccupation with method, which comes down to the question of how we can best use our faculties in our pursuit of knowledge.

Each of these three constituents of the logic of ideas is a further development of elements that are already clearly present in the

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<sup>3</sup> For the term 'logic of ideas', see John W. Yolton, 'Locke and the Seventeenth-Century Logic of Ideas', in: *Journal of the History of Ideas* 16 (1955), 431–452. For a more recent account, see Paul Schuurman, 'Locke's Logic of Ideas in Context: Content and Structure', in: *The British Journal for the History of Philosophy* 9 (2001), 439–465.

philosophy of René Descartes. The use of the word 'idea' in the seventeenth century, the key concept of the logic of ideas, can in most cases be traced back to its (re)introduction by Descartes. However, the Frenchman left the task of presenting these elements as one coherent alternative logic to his successors. Although these successors often formed a common front against traditional Aristotelians, they put the new logic to quite different uses. Whereas Malebranche stressed the importance of intellectual ideas as the basis for reliable knowledge, Locke used his taxonomy of ideas to lay the groundwork for an empiricist epistemology.

This picture of a logic that was able to accommodate both so-called 'rationalist' and 'empiricist' positions, becomes even more complicated when not only content, but also structure is taken into account. From the end of the sixteenth century onwards, Aristotelian textbooks show an increased attention to epistemological and methodological problems. During the seventeenth century, universities did not yet treat either epistemology or methodology as official philosophical subdisciplines. Therefore logical textbooks became important *loci* for problems that were hardly discussed in other parts of the academic curriculum. This role of logic textbooks as legitimate academic platforms for epistemological and methodological problems was especially vital in such countries as the Dutch Republic, where philosophy was very much an academic discipline.

Given this background, it is not surprising that proponents of the new logic of ideas should try to gain academic acceptance by trying to accommodate the content of their logic to the form and structure of traditional textbooks on logic. However, attempts at doing so implied huge structural problems. Aristotelian logic consisted of three levels: that of terms, propositions and syllogisms. Most textbooks were structured around these three levels. Consider for instance the *Logicae artis compendium* by Robert Sanderson (1587–1663); this book, a copy of which formed part of Locke's library, has the following structure:

- I. On simple terms.
- II. On propositions.
- III. On discourse.<sup>4</sup>

In many cases the last part on syllogisms contained some remarks on method and during the course of the seventeenth century this

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<sup>4</sup> I. De Simplicibus Terminis / II. De Propositionibus / III. De Discursu. Robert Sanderson, *Logicae artis compendium*, ed. E.J. Ashworth (Bologna, 1985; repr. of Ox-

subject was often given a separate fourth part. In the sixteenth and seventeenth centuries, the problem of method within the context of logic textbooks was often considered a problem of order, that is the ordering of a series of syllogisms. Petrus Ramus had ended his *Libri Scholarum dialecticarum* (1569) with a book on method, which for him consisted mainly in a dichotomous ordering of existing bodies of knowledge, that were expressed in the form of syllogisms.<sup>5</sup> In this way, method formed a fourth level in the sequence of terms-propositions-syllogisms-method. Although not all textbooks paid equal attention to method, they all discussed terms, propositions and syllogisms. And here we have the main structural obstacle for attempts to accommodate old logic with new logic. The logic of ideas did not have a tripartite structure, but only a bipartite structure, consisting of separate ideas and reasonings based on the comparison of these ideas. In this logic there no longer exists a fundamental difference between the level of judgments and the level of syllogisms. Both levels are compressed into the same level of reasoning, based on individual ideas that should be clear and distinct.

Arnauld is one of the first authors who grappled with the intractable problem of adapting the new logic to the structure of the old logic. His answer has a hybrid character. On the one hand, the general structure of his *Port-Royal Logic* is conventional enough:

- I. Containing reflections on ideas, or the first action of the mind, which is called conceiving.
- II. Containing reflections people have made about their judgments.
- III. On Reasoning.
- IV. On Method.<sup>6</sup>

On the other hand, we see that in the first part, terms are replaced by ideas as the basic units of logic. In this first part, Arnauld presents

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ford, 1618); this book is number 2548a in John Harrison and Peter Laslett, *The Library of John Locke* (Oxford, 1965). On the relation between Locke and Sanderson cf. W. von Leyden, 'Introduction' to John Locke, *Essays on the Law of Nature* (Oxford, 1954), 30–34.

<sup>5</sup> Petrus Ramus, *Libri Scholarum dialecticarum*, in: *Scholæ in liberales artes* (Hildesheim, 1970; repr. of Basel, 1569), Bk. XX, Ch. i, 588.

<sup>6</sup> 'I. Contenant les reflexions sur les idées, ou sur la premiere action de l'esprit, qui s'appelle concevoir.' / 'II. Contenant les reflexions que les hommes ont faites sur leurs jugemens.' / 'III. Du Raisonnement.' / 'IV. De la Methode.' Antoine Arnauld and Pierre Nicole, *La Logique ou l'art de penser*, ed. Pierre Clair and François Girbal (Paris, 1965); translation into English taken from: Antoine Arnauld and Pierre Nicole, *Logic or the Art of Thinking. Containing, besides common rules, several new observations appropriate for forming judgment*, ed. Jill Vance Buroker (Cambridge, 1996).

a largely Cartesian and anti-empiricist epistemology, based on the discussion of separate clear and distinct ideas. In the fourth part he gives a discussion of method that is heavily influenced by the paradigmatic role given to mathematics by Descartes and also by Blaise Pascal. Squeezed in between these novel first and fourth parts, are the second and third parts that contain a rather grudging discussion of Aristotelian propositions and syllogisms respectively.<sup>7</sup> This intricate pattern of relation and interaction between old logic and new logic, between old form and novel content, and finally between different directions within the new logic itself, forms the context for the present discussion of Le Clerc's *Logica*. Whereas Arnauld tried to accommodate a *rationalist* logic of ideas to the format of a logic textbook, Le Clerc tried to do the same for the *empiricist* logic of ideas as expounded in Locke's *Essay*.

## II. *Le Clerc on Logic*

Le Clerc can be considered an adherent of the new logic of ideas in various regards. He maintains that logic is nothing but the art of reasoning well; and this definition should be understood within a clearly anti-Aristotelian context. According to Le Clerc, logic from the time of Zeno of Elea had not served as an instrument for the investigation of truth, but as an easy way to further disputations.<sup>8</sup> This reasoning was not based on the knowledge of things but on rules of art. Le Clerc wished to present a logic that was concerned with the knowledge of things, not with mere words.<sup>9</sup> He praises modern logicians who have conceived of logic as an art of invention and not as an art of talking. In addition to helping us in reasoning well, logic should also assist us in disentangling ourselves from the empty words of scholastic logicians: 'when we know what those sayings mean, there is less danger that they deceive us ...'<sup>10</sup>

<sup>7</sup> In the very first paragraph of the part on syllogisms we read: 'Mais il y a sujet de douter si elle est aussi utile qu'on se imagine', Arnauld and Nicole, *La Logique*, Part III, 177.

<sup>8</sup> Johannes Clericus, *Logica, sive ars ratiocinandi* (Amsterdam, 1702), 'Præfatio', 2: 'Non ad investigationem veri, sed ad facilem tantum de omnibus disputationem, viam aperire studebant'. The translation of quotations from the *Logica* is by the author of this paper.

<sup>9</sup> *Ibid.*, 'Præfatio', 4-5: 'Itaque in hac nostra Logica, ante omnia, præcepta, quibus non ad verborum, sed ad rerum cognitionem perveniri queat, trademus.'

<sup>10</sup> *Ibid.*, 'Præfatio', 6: '... ubi scimus quid significant voces istæ, periculum minus



Le Clerc's logic has a structure that is largely in accordance with the quadripartite division of the *Port-Royal Logic* and there are many cases where he even follows its division into chapters. Le Clerc's treatise is divided into the following parts:

- I. On singular ideas.
- II. On judgements.
- III. On method.
- IV. On argumentation.<sup>11</sup>

Remarkably, Le Clerc has interchanged the third and the fourth parts of the *Port-Royal Logic*.<sup>12</sup> His decision to relegate Peripatetic syllogisms to the Fourth Part while assigning the Third Part to method, can be seen as a way of giving structural expression to a marginalization of syllogisms that had already started in Arnauld's logic. One consequence of this interchange is that method is no longer presented as pertaining to the order of syllogisms, but rather to the order of judgments.<sup>13</sup> In this way Le Clerc can present method as a natural sequel to a two-stage logic of ideas, while syllogisms are treated in the last part, which is hardly more than an appendix. Le Clerc discusses syllogisms because it is customary to do so in logic textbooks, not at all because they pay any vital contribution to logic. Syllogisms are of little use at best, that is to say when they are true.<sup>14</sup> In the worst case they are based on wrong assumptions that consist of mere obscure phrases.<sup>15</sup> Le Clerc's conventional discussion of syllogisms contains little of note and can be safely discarded. I shall concentrate instead on the first three parts of the *Logica*, dealing with ideas, judgements and method.

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est ne nobis imponant ...'

<sup>11</sup> *Ibid.*, 'I. De Singulis Ideis', 'II. De Judiciis', 'III. De Methodo', 'IV. De Argumentatione'.

<sup>12</sup> *Ibid.*, 'Præfatio', 15: 'Tertia Pars tradet, qua ratione disponi oporteat Enunciationes, ut veritas inveniatur aut inventa traditur, quæ dispositio *Methodus* dici solet. Quarta denique docebit artem disponendi propositiones, ut veritatem contradicentibus probemus, quod *Argumentationis* nomine designari, & *tertius disserendi modus* vocari solet. Quidam Methodum, de qua in tertia Parte agetus, *quartum disserendi modum* vocant; quod seu admittatur nomen, seu rejiciatur, perinde est.'

<sup>13</sup> *Ibid.*, I, i, 95: 'Postquam Perceptiones nostras simplices, itemque varia Judiciorum nostrorum genera contemplati sumus, & docuimus qua ratione circa ista, ut vitetur error, versari necesse sit; superest qua ratione judicia nostra debeant disponi, ut tutius ac citius veritatis cognitionem perveniatur, ostendamus. Atque hæc Logices Pars *Methodus* à Dialecticis dici solet; & paucis tractatur, præ ea parte in qua de *Syllogismo* agitur, quod haud paulo plus in animo ad disputationem, quam ad veritatis indagationem, muniendo laboret.'

<sup>14</sup> *Ibid.*, 'Præfatio', 3: '... vera quidem ea ut plurimum, sed fere inutilia ...'

<sup>15</sup> *Ibid.*, IV, v, 156–157.

III. *Ideas*

In chapter ix. of Part I, Le Clerc discusses the importance of the clarity of ideas as a condition for subsequently making certain judgments: 'If, based on any idea, we want to come to a certain judgment, this idea should first of all be clear.'<sup>16</sup> He follows Arnauld in declaring that it is not necessary to distinguish between the clarity and distinctness of ideas and he even uses the term 'distinct' in the definition of the term 'clear'.<sup>17</sup> However, his account of what kind of ideas are capable of being clear represents a departure from Arnauld's logic. The latter had started in Cartesian fashion with the clear idea of oneself, of extended substance, of being, existence, number and God and then proceeded with the confused and obscure ideas of sensible qualities. Against this, Le Clerc starts with a Lockean account of the clarity of simple sensitive ideas.<sup>18</sup> The clarity of ideas is used both by Arnauld and by Le Clerc as a criterion of truth, but in the former case this criterion is given an anti-sensitive thrust while in the latter case it is put to empirical use.

Indeed, Le Clerc infuses the structure of Arnauld's logic with Lockean influences. In *Logica* I, ii, Le Clerc gives a clearly Lockean discussion of simple and complex ideas. In the next two chapters he discusses the ideas of substances, modes and relations. These subjects are presented on a level that runs parallel to Arnauld's treatment of substances ('choses') and modes, attributes or qualities (which according to Arnauld are all 'manieres de choses'). In both Arnauld and Le Clerc taxonomy is followed immediately by a chapter in which they feel obliged, with manifest aversion, to present the traditional ten categories of Aristotle (consisting of substance and nine accidents). However, although Le Clerc's treatment of substances, modes and relations is given at exactly the same place as Arnauld's conventional discussion of substances and modes, the content of Le Clerc's analysis is different from Arnauld's and in complete accordance with Locke's unconventional division of complex ideas into modes, substances and relations.<sup>19</sup>

<sup>16</sup> *Ibid.*, I, ix, 34: 'Ut de idea aliqua certum feramus iudicium, ante omnia requiritur ut sit perspicua ...'

<sup>17</sup> *Ibid.*, I, ix, 34: 'Clara dicitur idea, cum quicquid complectitur nobis distincte animo observatur, ita ut ab omnibus aliis facile distingui queat.'

<sup>18</sup> *Ibid.*, I, ix, 34: 'Claræ sunt omnes ideæ simplices, quales sunt sensationes.'

<sup>19</sup> John Locke, *An Essay concerning Human Understanding*, ed. Peter H. Nidditch (Oxford, 1975), Book II, Chapter xii, 166–181.

Le Clerc's empiricist logic is pervaded by what can be called Locke's 'substantial agnosticism'. Locke had maintained that a man can have no idea of pure substances in general '... but only a Supposition of he knows not what support of such Qualities, which are capable of producing simple *Ideas* in us; which Qualities are commonly called Accidents.'<sup>20</sup> In a very similar vein Le Clerc writes about substances being 'I do not know what unknown subjects, in which some qualities constantly coexist ...'<sup>21</sup> For Le Clerc this definition is the point of departure for numerous attacks on a basic error to which both Aristotelians and Cartesians are prone, that is the error of unduly apodictical claims of knowledge concerning both material and spiritual substances.<sup>22</sup> He states that the Cartesian concept of extended substance is 'a most obscure thing',<sup>23</sup> and he inveighs against the Cartesian notion of thinking as the essence of mind, since we are unable to penetrate into this essence.<sup>24</sup> So, since neither spiritual substances nor material substances can be completely understood by men, it follows that men are not able to create a perfect theology or a perfect physics.<sup>25</sup> On this point not only Aristotelians, but also 'Recentiores ipsi' (that is to say Descartes and his followers) have lapsed.

The most substantial difference between Le Clerc on the one hand and Arnauld and Malebranche on the other, is indeed the Lockean epistemology of the former and the Cartesian epistemology of the latter. These differences are illustrated by the diverging positions of these authors concerning primary and secondary qualities. (Although these terms are Lockean, the distinction itself is older, and it was shared by Descartes and other mechanistic philosophers.) Arnauld points out that while we have clear ideas of movement, duration and number ('primary qualities' in Locke's vocabulary), we have only confused and obscure ideas of 'des qualités sensibles' such as colours, sounds, smells and tastes (which in Locke's parlance are

<sup>20</sup> *Ibid.*, II, xxiii. 2, 295.

<sup>21</sup> Le Clerc, *Logica*, I, iii, 14–15: '... subjecta nescio quæ ignota, in quibus quædam constanter coëxistunt proprietates.'

<sup>22</sup> See, however, Arnauld and Nicole, *La Logique*, IV, i, 292: 'Qu'il y a des choses que l'esprit humain est incapable de savoir.'

<sup>23</sup> Le Clerc, *Logica*, I, iii, 15. See also *ibid.*, I, ix, 36.

<sup>24</sup> *Ibid.*, I, vii, 29: '... nos revera in intimam Mentis essentiam penetrasse, non sequitur'. See also *ibid.*, I, x, 40.

<sup>25</sup> *Ibid.*, III, v, 114: '... sequitur neque Theologiæ, neque Physices ullum Systema perfectum posse ab hominibus fieri ...'

'secondary qualities'). This is because custom has led us to believe that these secondary qualities are not only in our minds but also in the objects that we perceive with our senses. We tend to think that the pain caused by a needle exists in the needle itself. For Arnauld this error forms an instance of the dubious reliability of sensitive perception in general.<sup>26</sup> A similar but more wary point is made by Malebranche, who stresses that we are led astray not so much by our senses as by a wrong use of our liberty, which results in rash judgments; however, this is something that we are especially prone to in the case of sensitive ideas.<sup>27</sup> Le Clerc is not blind to the error of supposing that there is something outside us which corresponds to the secondary ideas in our minds,<sup>28</sup> and he stresses that we should do our best not to fall into this trap. However, the very ideas that are treated with so much suspicion by Arnauld, such as ideas of colours and sounds, are regarded as simple sensitive ideas by Le Clerc, who considers them to be basic and vital elements in his epistemology. According to him these ideas are not at all obscure. Rather, having given his definition of what amounts to a clear idea, he continues with the remark that all simple ideas are clear in so far as they are sensual perceptions of light, sound, smell and taste,<sup>29</sup> and the liveliness of these ideas is taken as a measure of their clarity.<sup>30</sup> In Le Clerc's Lockean epistemology, the point of secondary qualities is not that they have to be mistrusted because they are sensorial, but rather that they remind us of the divide that exists between the ideas in our mind and the inaccessible essence of material substances outside us.

<sup>26</sup> Arnauld and Nicole, *La Logique*, I, ix, 70–76.

<sup>27</sup> Nicolas Malebranche, *Recherche de la vérité où l'on traite de la nature de l'esprit de l'homme et de l'usage qu'il en doit faire pour éviter l'erreur dans les sciences*, ed. Geneviève Rodis-Lewis (*Œuvres de Malebranche*, Vols. I and II) (Paris, 1962–1963), Bk. I, Ch. v, Vol. I, 77; see also *ibid.*, Bk. VI, Pt. II, Ch. ii, Vol. II, 302–304.

<sup>28</sup> Le Clerc, *Logica*, I, ii, 11.

<sup>29</sup> *Ibid.*, I, ix, 34: 'Ita sensatio lucis ejusmodi est, etenim cum ea percipimur, quicquid in ea est videmus, nec eam cum ulla alia idea confundere possumus. Idem dixeris de sonitu, de odore, de sapore, de voluptate, de dolore &c. quæ nunquam invicem confunduntur.'

<sup>30</sup> *Ibid.*, I, ix, 34: 'Atque hæc quidem sensationes eo clariores sunt, quo vividiores; cum enim vehementius Mens percipitur, magis attendit & clarius ejusmodi ideam vividam ab omnibus aliis distinguit.'

IV. *Judgements*

Le Clerc's discussion of judgments in the second part of his logic largely follows the pattern and the contents of Arnauld's logic. However, in this part Le Clerc again makes some interesting departures from the example of the *Port-Royal Logic*. Arnauld, in his section on judgments hardly bothers to make a distinction between different kinds of knowledge and of certainty. This is not surprising, once we assume a Cartesian background in which a major role is played by the ideal of the unity of all philosophical knowledge, which for Arnauld is more important than distinguishing between various kinds of knowledge. Against this, Le Clerc includes an entire chapter 'On the various degrees of clearness and probability in propositions'.<sup>31</sup> Here Le Clerc distinguishes between science and judgment, which coincides with the fundamental distinction between knowledge and opinion made by Locke in Book IV of the *Essay*. Locke had distinguished two faculties of the mind that are conversant about truth and falsehood:

*First, Knowledge*, whereby it certainly perceives, and is undoubtedly satisfied of the Agreement or Disagreement of any *Ideas*. *Secondly, Judgment*, which is the putting *Ideas* together, or separating them from one another in the Mind, when their certain Agreement or Disagreement is not perceived, but *presumed* to be so ...<sup>32</sup>

Le Clerc in a similar way defines science as '... knowledge taken from the introspection of the thing concerned, which itself excludes any doubt. This can originate from the simple intuition of ideas'.<sup>33</sup> And he defines opinion as the agreement of the soul to propositions that are not true but that only 'seem to display the appearance of truth'.<sup>34</sup>

<sup>31</sup> *Ibid.*, II, viii, 64: 'De variis Perspicuitatis in Propositionibus gradibus, & Verisimilitudine'.

<sup>32</sup> Locke, *Essay*, IV, xiv. 4, 653.

<sup>33</sup> Le Clerc, *Logica*, II, viii, 64: '... cognitio ex ipsius rei, de qua agitur, introspectione petita & quæ omnem dubitationem excludit. Potest autem oriri ex simplici intuitionem idearum ...'

<sup>34</sup> *Ibid.*, II, viii, 64: '... assensus animi Propositionibus non evidentem primo intuitu veris, neque ex veris per necessariam consequentiam deductis, sed quæ speciem veri præ se ferre videntur, præbitus.'

## V. Method

In the third part of his *Logica*, Le Clerc addresses the subject of method. Following the pattern of Arnauld, he gives a general discussion of the analytical and synthetical methods. In the analytical method we begin reasoning with particular truths, while in the synthetical method we start with general truths. These procedures are comparable to a genealogical investigation; in the case of analysis we go from descendant to ancestor while the reverse direction is taken in the case of synthesis. However, there is no difference in principle between these methods insofar as both start with what is known in order to gain knowledge about what is not yet known and insofar as they take into account only propositions that are evident.

Le Clerc starts his discussion of the analytical method with three general axioms, which apply not only to analysis but to synthesis as well. The first axiom holds that when we reason, each step should be evident; the second that we should reason only about things of which we have clear ideas; and the third that we should always begin with the simplest and easiest things, and pause before proceeding to more complex and difficult things.<sup>35</sup> The requirement of evidence (*evidentia*) of the first axiom and that of clarity of the second axiom are both derived from the first of the well-known four rules formulated in the second part of Descartes's *Discours de la Méthode*, while the third axiom is derived from Descartes's third rule. These general Cartesian axioms are followed by seven equally Cartesian rules that apply to analysis in particular and that are discussed in great detail.<sup>36</sup> Le Clerc's three general Cartesian axioms and seven partic-

<sup>35</sup> The first axiom: 'In omnibus gradibus progressionem nostrarum, in ratiociniis, conservandam esse evidentiam.' The second axiom: 'Debere nos de iis tantum, quorum clara menti nostra obversantur ideæ; aut rebus obscuris, quatenus duntaxat sunt nobis notæ, ratiocinari.' The third axiom: 'Nos debere semper incipere à simplicibus & facilibus, & iis aliquandiu inhærere, priusquam ad composita & difficilia progrediamur.' Le Clerc, *Logica*, III, iv, 110.

<sup>36</sup> *Ibid.*, III, iv, 110–112: 1. 'Perspicuè intelligendum statum quæstionum propositarum.' 2. 'Esse aliquo ingenii conatu retegendas unam aut plures ideas medias, quæ possint esse instar mensura communis, cujus ope invententur relationes, quæ intercedunt inter ideas comparandas.' 3. 'Ut à re, quæ consideranda venit, omnia, quæ non necessario pertinent, ad investigatam veritatem, circumcidantur.' 4. 'Quæstionem compositam dividi in partes, easque sigillatim expendi, eo ordine ut ab iis incipiamus quæ simplicioribus constant ideis; nec unquam ad compositas deveniamus, nisi postquam simpliciores distinctè novimus, & faciles nobis consideratu [sic] meditatione effecimus.' 5. 'Idearum quædam signa constitui figuris, aut verbis quam paucissimis comprehensa; eaque signa memoriæ imprimi, aut chartæ illimi, ne amplius circa hæc laboret Mens.' 6. 'Postquam quæ necessario in Quæstione

ular rules are all taken from Malebranche's *Recherche*. In most cases it can even be said that Le Clerc has provided literal translations of the French original into Latin.<sup>37</sup> However, there are some minor differences. Where Le Clerc gives a separate seventh rule, this is only a further specification of the sixth rule in the *Recherche*. Moreover, Malebranche did not explicitly describe his rules as being analytical, which is not strange given the fact that he does not continue his treatment of analysis with a discussion of rules of synthesis, as is the case with Le Clerc.

After his Malebranchian discussion of the analytical method, Le Clerc returns to Arnauld for a discussion of the synthetical method. He gives five rules that cover the main elements of the synthetical method of geometric demonstration, i.e. definitions, axioms and demonstrations:

The rules for definitions are: *I. Leave no term even slightly obscure or equivocal without defining it. II. Use in definitions only terms that are perfectly known or already explained.* The rule for axioms is: *Require in axioms only things that are perfectly evident.* For demonstrations the following rules are stated: *I. Prove all slightly obscure propositions, using in the proof only preceding definitions, axioms that have been granted, propositions that have already been demonstrated, or the construction of the thing itself that is in question whenever there is some operation to be done. II. Never take advantage of the equivocation in terms by failing to substitute mentally the definitions that restrict and explain them.*<sup>38</sup>

Again, Le Clerc is not developing an original idea here; his five synthetical rules are copied almost literally from Arnauld, who in turn had leaned heavily on Pascal's *L'Esprit géométrique*.<sup>39</sup>

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consideranda sunt, ea nobis evaserunt dilucida, compendiosisque signis notata, & ordine disposita sunt, tum ideæ, juxta sextam Legem, invicem, aut solâ meditatione, aut arrepto calamo & comparatione verbis expressa conferendas.' 7. 'Abscindendas omnes Propositiones, quas ad Quæstionis solutionem inutiles esse, examine facto,prehendimus; & in reliquis eodem ordine, qui sex prioribus Regulis traditus est, denuo procedendum.'

<sup>37</sup> Malebranche, *Recherche*, Bk. VI, Pt. II, Ch. i, 295–299.

<sup>38</sup> Le Clerc, *Logica*, III, ix, 128: 'Definitionum Leges sunt hæ: I. *Nullum vocabulum subobscurum, aut ambiguum sine definitione adhibere.* II. *In definitionibus nullis vocabulis, nisi notissimæ significationis, aut jam expositis, uti.* 'Axiomatum Lex est: *nihil Axiomatis instar, quod non sit evidentissimum, statuere.* Demonstrationibus hæ Leges positæ sunt: I. *Omnes Propositiones subobscuras probare, nec quicquam in iis demonstrandis adhibere, præter Definitiones constitutas, Axiomata concessa, Propositiones jam demonstratas, aut Constructionem figuræ, de qua agitur, ubi quid simile faciendum contingit.* II. *Nunquam abuti ambiguitate vocabulorum, iis non affingendo definitiones quibus exponuntur.* Cf. transl. in ed. Vance Buroker, 240.

<sup>39</sup> Pascal, 'De l'esprit géométrique et de l'art de persuader', in: *Œuvres complètes*,

Le Clerc's discussion of the analytical and synthetical method is limited in the sense that both methods pertain only to certain knowledge. However, as noted above, one of the great accomplishments of Locke's *Essay* was that it did not concentrate solely on (certain) 'knowledge', but also on 'probability'. His acceptance of probable knowledge forms the root of an epistemology as well as a method for the empirical sciences. Locke matched the limited certainty claims of his empiricist epistemology with an inductivist method that he himself called 'Historical' and 'plain'. This method is plain because its objects are macro-objects that are readily accessible to our experience, as opposed to the impenetrable micro-structure on a corpuscular level; and it is historical in the sense that it consists of a patient step-by-step observation of material objects from whose inaccessible real essences we cannot '... grasp at a time whole Sheaves; and in bundles, comprehend the Nature and Properties of whole Species together'.<sup>40</sup>

Locke's 'Historical, plain Method' formed a significant departure from such Cartesian works as Arnauld's *Port-Royal Logic*. The scope of Arnauld's supposedly demonstratively certain science included such important disciplines as physics, and therefore he felt no urge to develop a separate probabilistic epistemology or methodology. Le Clerc, on the other hand, by giving an empiricist logic of ideas and by making an explicit distinction between science and opinion, follows Locke much more closely than Arnauld. Thus one would expect Le Clerc to present a Lockean method as well. However, curiously enough he fails to attach any inductivist methodology to his empiricist epistemology. He confines himself to an account of synthetical and analytical method as given by Arnauld and Malebranche. Le Clerc's admission 'that in the various disciplines there are some things that cannot be treated geometrically',<sup>41</sup> almost seems to cry out for some inductivist alternative to the methods of analysis and synthesis; but still there is nothing comparable to Locke's plain historical method in Le Clerc's *Logica*. We can only guess the reason for this omission. Perhaps Le Clerc simply failed to notice Locke's discussion of his plain historical method. Although this method is an important theme in the *Essay*, it is discussed in various places without

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ed. Louis Lafuma (Paris, 1963), 355–359.

<sup>40</sup> For Locke's method see 'General Introduction' to John Locke, *Of the Conduct of the Understanding*, ed. Paul Schuurman (Diss. Keele University, 2000), 37–47.

<sup>41</sup> Le Clerc, *Logica*, III, xii, 140: '... quædam esse in variis Disciplinis, quæ nequeunt Geometricè proponi ...'



there being a separate chapter devoted it. Moreover, Le Clerc mentioned the 'Epitome' as a source of influence, not the *Essay* itself.<sup>42</sup> Locke's most substantial reference to his historical method is made in Book I of the *Essay*,<sup>43</sup> and this book is not included in the 'Epitome'.<sup>44</sup>

Finally, while Le Clerc fails to give an inductivist method, he does discuss the methodological device of attention. Before he proceeds to a more detailed scrutiny of the analytical and the synthetical method, he first includes a chapter that is absent in the *Port-Royal Logic*. The title of this chapter (III, ii) is: 'On the necessity of attention and the means by which it can be obtained'.<sup>45</sup> In this chapter he points out that we will obtain no clear ideas without attention, which implies a due and uninterrupted contemplation of the nature of the object that we are investigating.<sup>46</sup> Le Clerc then remarks that we find it easier to be attentive to those things that affect us by means of the senses, whereas most people have great difficulty keeping their attention fixed on abstract ideas. The reason for this difference is that sensorial ideas of corporeal images are more lively than abstract ideas. However, Le Clerc proposes to use the very liveliness of sensorial ideas to deflect our attention towards incorporeal objects. Mathematicians have shown that, when used diligently, this method can be very successful; children learn more easily by the use of images and figures than by mere words.<sup>47</sup>

In his letter to the reader, Le Clerc had already mentioned Malebranche as the source of his chapter on attention.<sup>48</sup> In Book VI of the *Recherche*, on method, Malebranche discusses the causes of the modification of our soul, i.e. the senses, our imagination and our passions. All have the danger of deflecting us from an attentive med-

<sup>42</sup> *Ibid.*, III, x–xi. However, Le Clerc's *Bibliothèque Universelle et Historique* 17 (1690), 399–427, does give a review of the (first edition of the) *Essay* itself; see Hans Bots, 'Jean Leclerc as Journalist of the *Bibliothèques*. His Contribution to the Spread of English Learning on the European Continent', in: G.A.M. Janssens and F.G.A.M. Aarts (eds.) *Studies in Seventeenth-Century English Literature, History and Bibliography* (Amsterdam, 1984), 53–66.

<sup>43</sup> Locke, *Essay*, I, i, 2, 44.

<sup>44</sup> However, in his theological writings Le Clerc did discuss the method that belongs to the field of opinion and probability; cf. R.W. Kroll, *The Material World. Literate Culture in the Restoration and Early Eighteenth Century* (Baltimore, 1991), 260–274.

<sup>45</sup> Le Clerc, *Logica*, 99: 'De Attentionis necessitate, & subsidiis quibus comparari potest.'

<sup>46</sup> *Ibid.*, III, iii, 100: '... quæ nihil aliud est præter diuturnam, neque intermissam, aut alliis cogitationibus interpellatam ideæ cujuspiam considerationem ...'

<sup>47</sup> *Ibid.*, III, iii, 101: '... dum enim oculi in figuras defixi sunt, animus rem cujus sunt signa contemplatur ...'

<sup>48</sup> *Ibid.*, 'Ad Lectorem', xi.

itation of the pure and abstract ideas of understanding. However, in spite of his rationalistic position Malebranche sees no other possibility in furthering our attention than a circumspect use of these very causes of modification: 'Nonetheless, as the soul cannot be without passions, sensation, or some other particular modification, we must make a virtue of necessity and draw even from these modifications assistance in making ourselves more attentive.'<sup>49</sup> He then gives an entire chapter on 'The use that can be made of the passions and the senses for preserving the mind's attention'.<sup>50</sup> In this chapter he points out that '... sensations awaken our attention much more quickly than pure ideas. From this it is clear that the mind's lack of attention to truths that do not affect it can be remedied by expressing them by sensible things that do affect it.'<sup>51</sup> In the rationalist philosophy of Malebranche, the use of sensorial images in furthering our attention amounts to playing with fire, which has to be accompanied by explicit warnings of moderation and circumspection. For Le Clerc, on the other hand, this is an altogether unproblematic aspect of his empiricist logic. It is therefore remarkable to see Le Clerc here echoing a Malebranchian anti-empiricist *caveat* which may be very relevant within the frame of the *Recherche*, but which looks oddly out of place in the *Logica*: '... above all care should be taken to prevent the trouble that generally is wont to come about in the mind through the senses, the imagination or the commotions of passion'.<sup>52</sup> Le Clerc may have continued here the activity of copying Malebranche somewhat longer than was warranted by his own empiricist assumptions.

<sup>49</sup> Malebranche, *Recherche*, Bk. VI, Pt. I, Ch. ii, Vol. II, 253: 'Cependant comme il n'est pas possible que l'ame soit sans passions, sans sentiment, ou sans quelque autre modification particulière; il faut faire de nécessité vertu, & tirer même de ces modifications des secours pour se rendre plus attentif.' Translation into English taken from: Nicolas Malebranche, *The Search after Truth*, ed. Thomas M. Lennon (Cambridge, 1997), 413.

<sup>50</sup> *Ibid.*, Bk. VI, Pt. I, Ch. iii, Vol. II, 254: 'De l'usage que l'on peut faire des passions & des sens pour conserver l'attention de l'esprit (transl. in ed. Lennon, 414).

<sup>51</sup> *Ibid.*, Bk. VI, Pt. I, Ch. iii, Vol. II, 259: '... les sensations réveillent donc nôtre attention d'une manière plus vive que les idées pures. Ainsi il est visible que l'on peut remedier au défaut d'application de l'esprit aux véitez qui ne le touchent pas, en les exprimant par des choses sensibles qui le touchent.' (transl. in ed. Lennon, 416).

<sup>52</sup> Le Clerc, *Logica*, III, ii, 100–101: '... verum est ante omnia cavendum, ne inde nascatur incommodum, quod sequi animi per sensus, imaginationem, aut affectus commotiones ut plurimum solet.'

VI. *Conclusion*

In a letter dated 22 December 1692 William Molyneux suggested to his friend John Locke the possibility of infusing the content of the *Essay* into a traditional structure,

... that is by Way of Logick, something accommodated to the Usual Forms, together with the Consideration of Extension, Solidity, Mobility, Thinking, Existence, Duration, Number, etc. and of the Mind of Man, and its Powers, as may make up a Compleat Body of what the Schooles call Logicks and Metaphisicks. (...) a Large Discourse in the way of a Logick would be much more taking in the Universitys, wherein Youths do not satisfy themselves to have the Breeding or Business of the Place, unles they are engaged in something that bears the name and Form of Logick.<sup>53</sup>

Locke himself did not at all like the suggestion of ‘turning my *Essay* into a body of logick and metaphisicks, accomodated to the usual forms.’<sup>54</sup> Since he was uninterested in academic respectability, his negative reaction is understandable. However, the eighteenth century would see various textbooks in which attempts were made to present the Lockean way of ideas in the tripartite format of scholastic logic.<sup>55</sup> Since Molyneux continued to feel the need for accommodating the content of the *Essay* to the form of a textbook on logic after having mentioned Le Clerc’s *Logica*, one may guess that he did not think much of Le Clerc’s own attempt to do so. Indeed, in the same letter Molyneux gives the following stern verdict: ‘... I have Lately seen Johannis Clerici Logica, Ontologia and Pneumatologia, in all which He has little Extraordinary but what he Borrows from you; and in the alteration he gives them he robbs them of their Native Beautys ...’ However, it looks as if Molyneux was somewhat too severe. Although none of the elements of Le Clerc’s *Logica*, when taken separately, is unique, this work makes a valuable contribution to the development of the logic of ideas. Le Clerc was the first author to use the format of a traditional textbook for presenting a logic of

<sup>53</sup> Locke, *Corr.* 1579, IV, 601–602.

<sup>54</sup> Letter from Locke to Molyneux, *Corr.* 1592, IV, 626.

<sup>55</sup> Three English examples are: Isaac Watts, *Logick: or, The Right Use of Reason in the Enquiry after Truth. With a Variety of Rules to guard against Error, in the Affairs of Religion and Human Life, as well as in the Sciences* (London, 1745); W. Duncan, *The Elements of Logick in Four Books* (Menston, 1970, repr. of London, 1748) and [Edward Bentham] *An Introduction to Logick, Scholastick and Rational* (Menston, 1967, repr. of Oxford, 1773). See ‘General Introduction’ to Locke, *Of the Conduct of the Understanding*, ed. Schuurman, 90–95.

ideas that had a Lockean rather than a Cartesian epistemology—if not yet a Lockean inductivist method. Le Clerc's *Logica* forms a good example of the neutrality of the logic of ideas *vis-à-vis* the *content* of an epistemology that could be either Cartesian or Lockean. This new logic formed an aggressive alternative to the works of peripatetic logicians. The wish to present an academically acceptable alternative to Aristotelian textbooks was probably the main drive behind both Arnauld's and Le Clerc's efforts. Le Clerc's clearly Lockean sympathies often led him to criticize the physical, metaphysical and, especially, epistemological tenets of Cartesian philosophers. Yet in the end, Le Clerc perceived Arnauld and Malebranche as allies in a more fundamental battle against scholasticism that by 1692 was apparently far from decided.<sup>56</sup>

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<sup>56</sup> Cf. G. Gori, *La fondazione dell'esperienza in 's Gravesande* (Florence, 1972), 46–47: 'Il *Tentamen* del "modestissimus idemque acutissimus Lockius" poteva così innestarsi sulla tradizione cartesiana olandese ed essere interpretato come una risposta ad ogni dogmatismo acritico.'



PART 3

*The Sciences*



## COMETS IN THE EARLY DUTCH ENLIGHTENMENT

ANDREW FIX

The seventeenth century in the Netherlands, as in the rest of Europe, was a period of great change in astronomy. As Copernicanism advanced and the Aristotelian worldview decayed, the way scientists and the educated public viewed comets also changed. From being considered atmospheric phenomena in the Aristotelian system, comets came to be viewed as celestial objects. At the same time, the age-old belief that comets were signs, or even causes, of disaster on earth was by the end of the century in eclipse. The relationship between changing scientific ideas about the physical nature of comets and the waning of the belief in comets as harbingers of misfortune was complex, and it can by no means be taken for granted that changing views of what comets were, led to changed beliefs about what comets meant.<sup>1</sup>

### I. *Medieval Views on Comets*

The traditional view of what comets were was rooted in the Aristotelian doctrine of the immutability of the heavens. Since comets appeared and disappeared, Aristotelians held that they were atmospheric or sublunary phenomena, giant balls of gas belched forth by the earth that caught fire due to air friction and blazed a path through the sky before burning out. Some astrologers held that these balls of terrestrial vapour were drawn forth from the earth by the influence of planets, especially Mercury and Mars, or by the conjunctions of certain planets. Also, according to the Aristotelian view, the atmospheric conditions that produced comets were hot and dry, and these same atmospheric conditions were thought to produce drought, high winds, and hot weather, leading to famine and pestilence. The same hot conditions also supposedly could excite the choleric humours in men, giving rise to revolts, wars, seditions, and

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<sup>1</sup> For an interesting discussion of this linkage, or lack thereof, see Eric Jorink, 'Van omineuze tot glorieuze hemeltekens. Veranderende opvattingen over kometen in de Republiek in de zeventiende eeuw', in: Florike Egmond *et al.* (eds.) *Kometen, monsters en muilezels. Het veranderende natuurbeeld en de natuurwetenschappen in de zeventiende eeuw* (Haarlem, 1999), 89–104, esp. 90, 102–104.



related political and religious changes. Thus the view that comets announced, or even caused, disasters was born. Throughout the medieval and early modern periods comets were seen as signs from God warning of his displeasure with men and his coming punishment of them, which would bring earthly disasters of all kinds, from bad weather to plagues, wars, the destruction of states, and the deaths of famous people.

Ideas about the signification of comets tended to be linked to broader astrological theories about the heavens' influence on the earth, even though comets were not believed to be celestial bodies. In the Netherlands from the late sixteenth century to the end of the seventeenth, a number of thinkers wrote about the physical nature of comets and their signification, culminating in the works of Balthasar Bekker (1634–1698) and Pierre Bayle (1647–1706) in the 1680s. These writings showed that ideas about what comets were and what they meant were changing, but interestingly enough, as Eric Jorink has recently pointed out, the writings also showed that these two changes were not necessarily connected. Views about what comets were could change without causing a corresponding change of belief in what they meant, and beliefs about comets as portents could change without a corresponding change in ideas about their physical nature.

Scepticism about comets as portents existed long before the Aristotelian picture of the cosmos was challenged. In the fourteenth century, Henry of Langenstein (1322–1397) rejected the attribution of events on earth to a comet or planetary conjunction that might have happened months or even years earlier. He also rejected the supposed affinity between comets and planets and held that comets had no astrological significance.<sup>2</sup> Also in the fourteenth century, Nicole Oresme (1320–1382) questioned many of the main tenets of astrology. In 1495 Giovanni Pico della Mirandola opened an all-out assault on astrology in his *Disputationes adversus astrologiam*, but the issue of comets was not directly addressed again until 1557 in the work of Julius Caesar Scaliger. Scaliger's *Exotericarum exercitationem liber quintus decimus de subtilitate ad Heironymus Cardanus*, a lengthy attack on the Italian astrologer Girolamo Cardano, held that many comets had appeared and nothing bad had followed, while much bad happened unannounced by comets. This argument was used by virtually every subsequent critic of comet portents, including Dutch sceptics.

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<sup>2</sup> Laura Ackerman Smoller, *History, Prophecy, and the Stars. The Christian Astrology of Pierre D'Ailly, 1350–1420* (Princeton, 1994), 35.

Tabitta van Nouhuys has given us an excellent picture of the debate about comets in the Netherlands during the last quarter of the sixteenth century and the first quarter of the seventeenth. The unusually bright and dramatic comet of 1577 served as the occasion for changing views of comets' physical nature, but these changes at first did not lead to scepticism about comet portents. The Danish astronomer Tycho Brahe, as well as the German Michael Mästlin attempted to calculate the comet's parallax and thus determine its distance from the earth, with Tycho's figures showing the comet much farther distant from the earth than the moon and thus a resident of the heavens, upsetting the Aristotelian theory of atmospheric comets. In the Netherlands, Cornelius Gemma, a professor at Leuven University, also measured the comet's parallax, which he found to be small and decreasing, indicating the comet was located beyond the moon. Because of its brightness and motion, Gemma believed that the comet travelled in the sphere of Mercury, but he still believed the comet to be a sign of great cataclysms to take place on earth and he spent most of his tract warning of these dangers.<sup>3</sup> Johannes Heurnius, the city physician of Utrecht, believed the comet to have been generated not in the atmosphere but in the lowest part of the superlunary realm—which he called the astral element—through the influence of Mars. But he too believed the comet to be a sign that great changes were coming on earth.<sup>4</sup> In 1577 the one somewhat sceptical voice about comets as portents came from France in the person of Blaise de Vigenere (1523–1596). His *Traicte des Cometes, ou Estoilles Chevelues* rejected the Aristotelian theory about the physical nature of comets and also questioned the widely held view that comets announced the deaths of kings and princes. Both the deaths of princes and the rise and fall of states had often happened with no comets to announce them, de Vigenere wrote, but in 1577 his was a lonely voice.<sup>5</sup>

## II. Early Modern Scepticism

The years between 1577 and the next great comets in 1618 were ones of important astronomical discoveries. Galileo's telescopic ob-

<sup>3</sup> Tabitta van Nouhuys, *The Age of Two-Faced Janus. The Comets of 1577 and 1618 and the Decline of the Aristotelian World View in the Netherlands* (Leiden, 1998), 169–186.

<sup>4</sup> *Ibid.*, 189–207.

<sup>5</sup> Blaise de Vigenere, *Traicte des Cometes ou Estoilles Chevelues, Apparoissantes Extraordinairement au Ciel* ... (Paris, 1578), 22–33, 93–100.

servations of the heavens, popularized in his *Starry Messenger*, further destabilized the Aristotelian view of the cosmos. The discovery of the moons of Jupiter, as well as many new stars, the mountainous nature of the moon, the phases of Venus, and the first indications of Saturn's rings, promoted a fundamentally changed view of the cosmos. When an un-Aristotelian view of the physical nature of comets began to emerge in the wake of the spectacular comets of 1618, it was sometimes linked to serious scepticism about comets as portents. As Van Nouhuys has shown, this scepticism emerged in the Netherlands with three important figures: Erycius Puteanus, Thomas Fienus, and Libertus Fromondus, all professors at Leuven. Their criticism of comet portents was so important that they were still considered major critics of the traditional view as late as the 1680s.<sup>6</sup>

Puteanus held that comets were celestial objects, thick globes of coagulated material that absorbed the sun's light and became illuminated. Displaying an awareness of the latest cosmological debates, Puteanus rejected the immutability of the heavens and the notion of the heavenly spheres, and argued for the celestial nature of comets based on their parallax as well their motion, duration, form, size, light and colour.<sup>7</sup> Puteanus denied that comets signified war, pestilence, famine, the deaths of kings, and the fall of empires, but the arguments that he made against comet portents were little related to his view of comets' physical nature. Like Scaliger he argued that many more wars had occurred than comets had appeared, and he noted that the comet of 1618 could not be regarded as a herald of a war that had already started before it appeared. Comets could not cause pestilence because heavenly bodies were pure and devoid of contagious influences. Comets did not cause famine—war and pestilence that left the land abandoned and devastated did that. And many princes had died without the appearance of comets, while most comets appeared without princely deaths. And even when a comet appeared and a prince died, it was not justified to turn coincidence into cause, Puteanus argued.<sup>8</sup>

Fienus, Puteanus's colleague at the Leuven medical faculty, also saw comets as heavenly phenomena, and he too denied that comets were causes or signs of misfortune. While Aristotle held that comets

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<sup>6</sup> See the anonymously published tract *Gründliche Widerlegung des Neuliger Zeit heraus gegebenen Bedenctens: ob die Cometen Zukunfftige Unglucks Fälle als Krieg, Theurung, Pestilenss, grosser herren Todt verkundigen?* (S.l., 1681), 1, 5.

<sup>7</sup> Van Nouhuys, *The Age of Two-Faced Janus*, 305–316.

<sup>8</sup> *Ibid.*, 488–501.

were hot and dry exhalations from the earth that could cause atmospheric disturbances, Fienus argued that as celestial phenomena comets could not be responsible for terrestrial ills. Fienus thus established a link between his view of the physical nature of comets and his rejection of belief in cometary portents. A comet's tail could have no effect on the earth because it consisted only of sunlight, and the heads of comets were far too small to effect the earth.<sup>9</sup> But like other critics before him, Fienus also made use of stock arguments such as noting that just because many sad events had followed comets it did not mean that the events were caused by the comets. History showed, he argued, that both sad and happy events continuously took place, with or without comets. He asked how astrologers could know which regions of the earth would be struck by the misfortunes a comet supposedly foretold, and he noted that if misery followed a comet in one region of the world, happiness would reign in some other region.<sup>10</sup>

A third Leuven professor, Libertus Fromondus, believed that comets carried no natural predictive value and ridiculed predictions made from recent comets as well as from the 'new star' of 1572. But he did believe that at times natural phenomena such as comets could be used as warnings by God.<sup>11</sup> Thus Fromondus was less sceptical about the portentous nature of comets than Puteanus and Fienus, but most other writers on the comets of 1618 were far less sceptical still. Indeed, the overwhelming majority of writers in 1618–1619 saw the comets in the traditional sense as harbingers of disaster, and this included men such as Willebrord Snellius, professor at Leiden University. Puteanus and Fienus were still rather isolated voices in the Netherlands, and for this reason their writings were long remembered.<sup>12</sup>

### III. *Pierre Bayle and Balthasar Bekker*

By the second half of the seventeenth century, scepticism about the predictive nature of comets had grown sharper and louder. While the classic works from this period are those from the 1680s by Bekker and Bayle, by now theirs were not lonely voices. The changing atmo-

<sup>9</sup> *Ibid.*, 513–514, 519–520.

<sup>10</sup> *Ibid.*, 521–522.

<sup>11</sup> *Ibid.*, 524.

<sup>12</sup> See also Eric Jorink, 'Hemelse tekenen. Nederlandse opvattingen over de komet van 1618,' in: *Gewina* 17 (1994), 68–81.

sphere in comet discussions was already evident in the 1660s, when several sceptical works appeared. In England, John Spencer attacked comet superstition and the vanity of comet presages. In France, the astronomer Pierre Petit (1598–1677) wrote his lengthy *Dissertation sur la nature des cometes* (1665) by special commission from Louis XIV. Petit saw comets as natural phenomena that should not be mistaken for miracles or taken as prognostications about the future. According to Petit, belief in comets as portents was worthy only ‘of women and children,’ the ‘ignorant and the feeble minded.’<sup>13</sup> Other writers supported Petit’s view. Also in 1665 the French Jesuit Jacques de Billing argued that comets foretold neither good nor bad, while his Jesuit colleague Jacques Grandamy attributed belief in comets as portents to the ignorance of the common people and the greed of charlatans and astrologers.<sup>14</sup> But in another example of the disconnectedness between some authors’ views of the physical nature of comets and their portentous character, Grandamy, while seeing comets as natural phenomena in the superlunar realm, continued to place his understanding of the physical nature of comets within an Aristotelian framework that assumed the immutability of the heavens.<sup>15</sup>

In the Netherlands, the Utrecht professor, Cartesian, and classical scholar Johann Georg Graevius attacked comet superstition, producing a long list of bad things not portended by comets and exhorting his countrymen not to fear comets. In a sensational academic oration, Graevius, like Petit, declared comets to be natural phenomena subject to the laws of nature. Fear of comets he saw as a heathen superstition akin to other kinds of ancient divination. But even in 1665 the question of comets was still far from settled, and Graevius’ work ignited a debate in which the Utrecht theologian and preacher Gisbertus Voetius took the lead in arguing in favor of comet portents, while theologian and preacher Lodewijk Wolzogen and others supported Graevius’ position.<sup>16</sup>

<sup>13</sup> Pierre Petit, *Dissertation sur la Nature des Cometes. Au Roy. Avec un Discours sur les Prognostiques des Eclipses & Autres Matieres Curieuses* (Paris, 1665), 80–81, 113.

<sup>14</sup> James H. Robinson, *The Great Comet of 1680. A Study in the History of Rationalism* (Northfield, Minn., 1916), 77–78.

<sup>15</sup> Roger Ariew, ‘Theory of Comets at Paris during the Seventeenth Century,’ in: *Journal of the History of Ideas* 53 (1992), 366–367.

<sup>16</sup> Robinson, *The Great Comet of 1680*, 88–89; Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001), 33–34; Jorink, ‘Van omineuze tot glorieuze hemeltekens’, 98–100.

By the time several spectacular comets appeared between 1680 and 1682, scepticism about comet portents had become much more widespread. Of course, there were still writers who maintained the traditional view (among whom the Dutch preacher Jacobus Koelman and one G. Cocq of Utrecht), but in most countries sceptical voices gained ground. In Germany several sceptical pamphlets appeared anonymously and a German translation of Petit was published. When other works were written rejecting this scepticism, Puteanus and Fienus were still referred to as originators of the sceptical tradition.<sup>17</sup> In France, sceptical articles appeared in the *Journal des Scavans* and the *Mercure Galant*, pamphlets circulated against comet portents, and even a comedy ridiculing comet superstition was published by Fontenelle. Mallement de Messanges, professor of philosophy at the College of Plessis in Paris, wrote a *Dissertation sur les Cometes* opposing comet superstition.<sup>18</sup> In the Netherlands Graevius' earlier ideas now appeared in published form, at the behest of the States of Utrecht, as the *Oratio de Cometis* (1681), and in 1682 a Dutch translation appeared, the *Redenvoeringh ofte Oratie van de Cometen vernietigende het gemeene gevoelen dat deselve yets quaets aenkondigen*.<sup>19</sup> But by far the most influential Dutch works from this period were those by Bekker and Bayle. While both writers wrote in a new intellectual atmosphere with regard to comets, many of their arguments were nevertheless borrowed from earlier writers against comet portents and astrology.

Bayle's work predated Bekker's, and outside the Netherlands, it had more influence, although it was mostly known for points he made that had nothing to do with comets, such as his comments about the possible virtuous life of atheists. A life-long Calvinist, Bayle fled France in 1681 when Louis XIV closed the Protestant academy of Sedan, at which he had been a professor. Bayle arrived in the Dutch Republic with the manuscript of his *Lettre sur la Comete*, which he published in 1682. A third edition came out in 1683, renamed the *Pensees diverses sur la comete*. In the meantime Bayle had obtained a professorship in philosophy at the École Illustre in Rotterdam. Bayle had very little to say about the physical nature of comets. Like Petit, from whose ideas he borrowed heavily, he considered them natural objects subject to the ordinary laws of nature: he called them 'objects as ancient as the world' following the laws of motion that God created

<sup>17</sup> See *Gründliche Widerlegung*, 1, 5.

<sup>18</sup> Robinson, *The Great Comet of 1680*, 58–63, 80–83.

<sup>19</sup> *Ibid.*, 89.

for 'this vast machine of the universe.'<sup>20</sup> Their motion caused them to pass into man's view from time to time and to reflect back to earth the light of the sun in the form of a long train of rays stretching out either in front of or behind the comet's head. But Bayle declared that the comet's passage in man's world was not a matter of good or bad fortune any more than was the voyage of an Indian in Europe.<sup>21</sup>

With few references to the cosmological debates of the day, Bayle proceeded to attack the authority of both ancient and modern writers who defended comets as portents. The fact that many people had believed certain things about comets for centuries, did not make these ideas any more probable than if seven or eight people believed them, he asserted.<sup>22</sup> Bayle also attacked the logic underlying the arguments of those who saw comets as portents, much as Puteanus had done earlier. He admitted that comets had appeared as often as historians had reported, and that in the years following comets as much misfortune had occurred as was reported. But Bayle defied anyone to prove that comets had been either the causes or the signs of such misfortune. Considering the ordinary course of the world, in any given year there would be a great calamity somewhere. It was astonishing, Bayle exclaimed, that a dogma as harmful as comet superstition was supported only by the logical fallacy 'post hoc, propter hoc' that one learned to reject in school.<sup>23</sup> Bayle also repeated the standard argument that just as much misfortune had occurred in years in which no comets had appeared as in those years with comets, and that many good things had taken place in years supposedly menaced by comets.<sup>24</sup>

Bayle declared that comets were not natural causes of misfortune because they were too far away from earth to cause terrestrial changes. Nor were they natural signs of disaster.<sup>25</sup> And comets were not miraculous signs sent by God, for if they were, God would have given them special characteristics marking them clearly as signs. On the contrary, God had stripped from comets any true markings of significant prodigies, as if to protect man from his natural credulity. God allowed the sun to determine the direction of comet tails, and he often gave comets courses that took them so near the sun that no-

<sup>20</sup> Pierre Bayle, *Pensees Diverses sur la Comete*, 2 vols., ed. A. Prat (Paris, 1939), II, 316.

<sup>21</sup> *Ibid.*, 316; *ibid.*, I, 27.

<sup>22</sup> *Ibid.*, I, 38.

<sup>23</sup> *Ibid.*, I, 33, 82-83.

<sup>24</sup> *Ibid.*, I, 84-85.

<sup>25</sup> *Ibid.*, I, 41-42.

body could see them. And God sometimes made comets so small and far away from earth that they could only be seen by a few astronomers glued to their telescopes, Bayle said, adding that a comet seen by only two or three astronomers could not be a sign from God.<sup>26</sup>

Bayle continued that many had profited from the appearances of comets and the fear thus provoked in people. Astrologers had made a trade of saying that comets were harmful and of retailing specifics about the evils they presaged. Those who wanted to make people fear the anger of God never failed to mention comets. And rulers used comet predictions either to intimidate their subjects or to instill confidence in them.<sup>27</sup> The devil, too, found that popular superstitions such as comet portents were an infallible way of being worshipped under the name of a false god. The devil used his trickery every time a comet appeared to persuade people to become idolaters: he convinced them that comets were signs of God's anger and that God had to be appeased by some sacrifice. In this way the devil made religion into a mass of nonsense and crimes.<sup>28</sup>

Finally, Bayle launched a general attack on the astrological methods underlying comet superstition. There was nothing more impertinent nor more chimerical than astrology, he declared. Astrologers claimed that the particular quality of a comet depended on the sign or house in which it was first seen, and in this way they drew up horoscopes of comets and told what they presaged. Even though astrological predictions were false and ridiculous, and predictions based on comets the nullest of nullities, there had always been people dishonest enough to fool others under the pretext of knowing the things of heaven, and there had always been people foolish enough to believe such ideas. Astrologers had been placed in high offices and people had feared to adopt a new habit or to plant a tree without consulting an astrologer. But, Bayle reiterated, opinions founded only on the great number of people who believed them were not therefore true.<sup>29</sup>

Even more pointed than Bayle's criticism of comet portents was the work of Balthasar Bekker, a minister in the Dutch Reformed church who took an early interest in Cartesian philosophy. Bekker served congregations in Friesland and the province of Utrecht before moving to Amsterdam in 1680, where he observed the comets

<sup>26</sup> *Ibid.*, II, 313–317.

<sup>27</sup> *Ibid.*, II, 203–210.

<sup>28</sup> *Ibid.*, I, 56.

<sup>29</sup> *Ibid.*, I, 56–89.



of 1681 and 1682 and the great popular agitation they provoked. He preached against fear of comets as portents and expanded his sermons into a book, the *Ondersoek van de Betekeninge der Kometen*, which he published at Leeuwarden in 1683, with a reprinted edition in Amsterdam in 1692.

Bekker displayed far more knowledge of astronomical theory than Bayle had, beginning his book by discussing the ideas about comets of such important thinkers as Descartes, Hevelius, and Bernoulli. In this discussion, Bekker pointed out how these and other scientists disagreed about the physical nature of comets, and then he asked a pointed question: if after sixty centuries of comet appearances people still disagreed about what comets were, how could they decide anything about what comets meant? But he added that the common belief that comets were signs of coming misfortune was beginning to be doubted by those who did not see how this could naturally happen.<sup>30</sup> The remainder of Bekker's arguments against comet portents, however, had little to do with scientific theory and were related to, if not drawn from, the standard arguments of earlier sceptics. Like Puteanus and Bayle, Bekker attacked the authority of writers who held comets to be portents. He made it clear that comet superstition was rooted for the most part in the writings of poets and historians who knew little of how the heavens worked, while most astronomers, truly learned in such matters, denied comets were portents.<sup>31</sup> The fact that Bekker could make this statement about the astronomers of his day shows how different from Puteanus' time the science of astronomy was in 1683.

Comets could not be signs of disaster, Bekker continued, because most comets were seen for only a very short time and were quite far away. Like Fienus, he pointed out the difficulty of determining which regions of the earth would be struck by the disasters which a comet had supposedly foretold. And like nearly every previous sceptic, Bekker pointed out that just because an event followed a comet it did not mean the comet was a sign or cause of the event. Indeed many comets appeared without misfortune following, and much misfortune had taken place unannounced by comets. As examples of the latter, Bekker listed the Swedish-German war of 1630, the English Revolution, and the French invasion of the Dutch Republic in 1672. And like Puteanus before him, Bekker dismissed the

<sup>30</sup> Balthasar Bekker, *Ondersoek van de Betekeninge der Kometen, By Geleghendheid van de gene die in de Jaren 1680, 1681, en 1682 Geschenen Hebben* (Amsterdam, 1692), 11–14.

<sup>31</sup> *Ibid.*, 25, 85–86.

supposed significance of the 1618 comets, saying they could not have announced a war that was already underway before they appeared.<sup>32</sup>

Bekker, the Reformed minister, declared that the Bible nowhere supported belief in comet portents, a belief that he considered a sin. Scripture did in many places speak of the stars in the heavens, but comets were never mentioned. Bekker argued this was simply because God did not consider comets important enough to merit mention in holy writ.<sup>33</sup> It was not God's will to use comets as signs of coming disasters, for giving comets such meaning took away from His power, since such foreknowledge was 'an uncommunicable characteristic of the eternal living God.'<sup>34</sup> Belief in comet portents thus detracted from the honour that people owed to God alone.<sup>35</sup>

Finally, like Puteanus, Fienus and Bayle, Bekker attacked astrology and its methods. Throughout the ages all sorts of deceivers had taken advantage of peoples' superstitions to mislead them, and thus astrologers had promoted the popular view that comets were portents.<sup>36</sup> But 'whoever has a sound brain, free from previously-made judgements, can easily recognize that these things are all figments of loose minds,' Bekker declared.<sup>37</sup> Astrology had no usefulness and its prognostications were to be rejected by those who observed the heavens with the 'renewed system of Aristarchus, Copernicus and Descartes.'<sup>38</sup> Thus Bekker attacked comet superstition with arguments similar to those used by Puteanus and Fienus in 1618 as well as with reasoning similar to that used by critics of astrology since Pico's day. While Bekker added a few new arguments and emphases of his own, the majority of his arguments were traditional and well-versed, and not much related to developments made during the seventeenth century in science, including astronomy. Astonishingly enough, the same was true of the arguments made by the important English astronomer John Flamsteed in a work against astrology that he penned in the 1670s.<sup>39</sup> Apparently, traditional arguments were hard to give up even when science could offer alternatives.

<sup>32</sup> *Ibid.*, 20–21, 35–38.

<sup>33</sup> *Ibid.* 39–41.

<sup>34</sup> *Ibid.*, 82–83.

<sup>35</sup> *Ibid.*, 60–66.

<sup>36</sup> *Ibid.*, 77–81.

<sup>37</sup> *Ibid.*, 22.

<sup>38</sup> *Ibid.*, 22–23.

<sup>39</sup> Michael Hunter, 'Science and Astrology in Seventeenth-Century England. An Unpublished Polemic by John Flamsteed,' in: Patrick Curry (ed.) *Astrology, Science and Society* (Woodbridge, Suffolk, 1987), 261–286.

IV. *Conclusion*

By the end of the seventeenth century, much had changed since the great comets of 1618. The works of Puteanus, Fienus, and Fromondus represented a minority viewpoint in 1618, with most works written about the comets of 1618—including the work of Leiden professor Snellius—predicting disastrous consequences. But when Bekker wrote on the comets of 1680 and 1681, his words found a much more receptive public. By the early 1680s a consensus was clearly developing that comets were not portents of disaster, or indeed of anything. The reasons for this shift in belief have been much debated. Two recent books have attempted to answer this question. In her *Comets, Popular Culture and the Birth of Modern Cosmology* (1997), Sara Schechner Genuth downplays the influence of scientific, and especially astronomical, advances on belief in comets as portents and concludes instead that by the end of the seventeenth century the educated elite of Europe had rejected comets as omens as part of a broader attempt to set elite culture apart from popular beliefs and culture.<sup>40</sup> Tabitta van Nouhuys, in *The Age of Two-Faced Janus. The Comets of 1577 and 1618 and the Decline of the Aristotelian World View in the Netherlands* (1998), gives more importance to scientific and philosophical ideas in causing the change, arguing specifically that the humanist return to the foundations of ancient culture resuscitated Stoic physical theories to compete with the Aristotelian cosmology. These Stoic views saw comets as belonging to an order of nature established by God and thus robbed them of their extraordinary nature as signs or causes of disaster, while at the same time downplaying God's special agency in nature.<sup>41</sup>

Each of these explanations is, in its own way, inadequate. While Genuth seems to be describing an effect rather than a cause of changing beliefs about comets, Van Nouhuys' position that Stoic ideas changed conceptions of nature does not establish why comets could not still be seen as signs or causes of disaster, as many ancient Stoics (with the notable exception of Cicero) had indeed believed them to be. Thus no adequate explanation of this momentous intellectual change has yet been offered. It is clear that in dealing with gradually changing views of the portentous nature of comets one is charting the advance of the Enlightenment worldview among the educated elite

<sup>40</sup> Sara Schechner Genuth, *Comets, Popular Culture, and the Birth of Modern Cosmology* (Princeton, 1997), 124.

<sup>41</sup> Van Nouhuys, *The Age of Two-Faced Janus*, 565.

of Europe. However, the question remains what happened between 1618 and 1680 to bring about such a shift in opinion?

While much further work is needed to answer this question, a few preliminary observations and suggestions can be offered. While changes in the astronomical view of comets were an important ingredient, making possible changing views of comets as portents, astronomical changes by no means necessitated changing views of the portentous nature of comets. As Van Nouhuys has shown, many writers on the comet of 1577 abandoned in whole or in part the Aristotelian view of the nature of comets, but of these only one writer expressed scepticism about comets as portents. By 1618 the Aristotelian view of comets was beginning to be widely discounted, but scepticism about comet portents was still limited and guarded.

It should be remembered that in rejecting the Aristotelian view of comets as atmospheric phenomena and moving them into the celestial realm, astronomical advance for the first time actually placed comets clearly in the realm traditionally governed by astrological theory. While changing astronomical views of comets might have made a shift in belief in the portentous nature of comets possible—if only by promoting change itself—there was no necessary connection between the physical nature of comets and their role as portents of disaster. In principle, celestial comets could be portents just as well as atmospheric ones could. And even comets understood in a purely natural sense could be seen as portents built into nature by God. Many writers on comets had indeed maintained that God often worked through nature. The only astronomical advance that had real potential to change the view of comets as portents was the work of Halley and Newton on periodicity, but that did not *begin* until the 1680s, by which time the traditional view of comet portents was already substantially altered. Many of the sceptics of comets as portents in the last years of the seventeenth century discussed the latest astronomical discoveries in the context of their treatments of the physical nature of comets. But when it came to rejecting comets as portents, most of their arguments were not at all scientific, but rather arguments borrowed from earlier critics. Science, while perhaps aiding in changing views of comets as portents, was not a decisive factor in that change.

Religious and social factors, it might be suggested, played a more significant role in the decline of belief that comets predicted the future. Belief in comets as portents was closely tied to astrological prediction of a broader sort in the minds of many churchmen, who saw both as forms of divination. The early church fathers had rejected as-

trological predictions as opposed to both human free will and God's power, and the attack on astrology was renewed with great vigour in 1495 in Giovanni Pico della Mirandola's *Disputationes adversus astrologiam*, which supplied future critics with a formidable arsenal of weapons for use both against astrological prediction in general and comet portents specifically.<sup>42</sup>

In Elizabethan England the clergy saw astrology as a threat to the church's view of the course of human lives. For these clerics, astrology was an impious materialism that opposed the supremacy of God over matter and the supremacy of the human will over the body. Of the six full-scale attacks on astrology in Elizabethan England, five came from clerics.<sup>43</sup> In Reformation and post-Reformation Germany, despite Luther's opposition to astrology, the practice became closely linked to apocalyptic prophecy in the minds of many. The sixteenth century in Germany was a golden age for astrological prophecy, as astrology came to be seen as a spiritual art complementing biblical prophecy. Yet this very link of astrology to other forms of prophecy set the stage for astrology's decline in the seventeenth century.<sup>44</sup>

Robin Barnes has suggested that in Germany after 1620 a reaction set in on the part of the established churches against increasingly radical and unorthodox prophetic visions that came to be seen as dangerous to religion and society. This reaction discredited astrological prophecy, and astrology was increasingly abandoned as a support for biblical prophecy. Thus after 1620 the movements of heavenly bodies were less frequently seen as harbingers of divine punishment, and, as a result, even comets began to lose their threatening aspect.<sup>45</sup> Professional astronomers became increasingly more interested in the precise natural characteristics of heavenly objects, and by 1620 a few already thought it unprofitable to speculate about a comet's supernatural significance.<sup>46</sup>

This reaction against extremist prophecy on the part of the established churches extended far beyond Germany and combined with traditional clerical opposition to astrology as well as with the sceptical arguments of Pico and his successors brought about a gen-

<sup>42</sup> Don Cameron Allen, *The Star-Crossed Renaissance. The Quarrel about Astrology and its Influence in England* (New York, 1966), 28–33.

<sup>43</sup> Paul H. Kocher, *Science and Religion in Elizabethan England* (New York, 1969), 210–214.

<sup>44</sup> Robin Bruce Barnes, *Prophecy and Gnosis. Apocalypticism in the Wake of the Lutheran Reformation* (Stanford, 1988), 141–150.

<sup>45</sup> *Ibid.*, 231–248.

<sup>46</sup> *Ibid.*, 180.

eral decline in the belief in astrological and cometary predictions. The many radical prophets of the turbulent period in central Europe of the Thirty Years War (1618–1648), as well as groups like the Fifth Monarchy Men who surfaced during England's tumultuous civil war and interregnum (1642–1658), increased the determination not only of the established churches but of social and political authorities as well, to quell prophecy of all sorts, including astrological and cometary prognostications, as inherently destabilizing. Louis XIV's charge to Pierre Petit as well as Johann Georg Graevius' work for the States of Utrecht were witnesses to this trend, as was the movement against so-called 'enthusiasm' in England after 1660. The Anglican church of the Restoration period campaigned against astrology, which it believed was linked to profane magic and vulgar enthusiasm. John Flamsteed rejected astrology not only because he considered it lacking as a science, but also because he saw it as having socially undesirable consequences.<sup>47</sup>

It became increasingly unfashionable and even dangerous to make broad predictions from heavenly events, and when this combined with the rise to prominence of a mechanistic worldview in the wake of Gassendi, Descartes and others, a naturalistic scepticism about cometary portents was the result. While Petit used this naturalistic critique to please his royal master, such arguments had become second nature by the time sceptics like Bayle and Bekker wrote their treatises.

There is, however, some difficulty in applying this general explanation to the Netherlands of the seventeenth century, if only because radical prophecy in all of its forms—astrological, millenarian, and others—was less prevalent there than in other countries. Yet there were both proponents and critics of prophecy in the Dutch Republic.<sup>48</sup> The names of Johannes Rothe (1628–1702) and his disciples Quirinus Kuhlmann and Allard de Raedt are of note as advocates of millenarian prophecy in the seventeenth-century Republic, as was that of the prophetess Antoinette Bourignon (1616–1680). Among the Rijnsburg Collegiants, Petrus Serrarius (1600–1669) and Daniel de Breen (1594–1664) were known for their interest in prophecy.<sup>49</sup>

<sup>47</sup> Patrick Curry, *Prophecy and Power. Astrology in Early Modern England* (Princeton, 1989), 108, 138.

<sup>48</sup> Wiep van Bunge, *From Stevin to Spinoza. An Essay on Philosophy in the Seventeenth-Century Dutch Republic* (Leiden, 2001), 138.

<sup>49</sup> Andrew C. Fix, *Prophecy and Reason. The Dutch Collegiants in the Early Enlightenment* (Princeton, 1991), 65–81 and 'Dutch Millenarianism and the Role of Reason', in:

Among the Reformed, the theology of Johannes Cocceius (1603–1669) contained a prophetic element, and millenarian rumblings were audible in both the Cocceian and Voetian camps following such events as the revocation of the Edict of Nantes and the Glorious Revolution.<sup>50</sup> In fact, it was none other than Balthasar Bekker himself who took up the fight against prophetic theology in a commentary on the biblical book of Daniel which he published in 1688. In Bekker's view, speculation about biblical prophecies would not lead believers to salvation.<sup>51</sup> The link that existed in Bekker's mind between comet portents and other forms of prophecy, all of which he saw as unproductive at best and as offensive to God at worst, could certainly have been an idea shared by some of his countrymen. Indeed, the fact that radical prophecy did not flourish in the Republic might itself help to explain why scepticism about comet portents did.

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Richard H. Popkin and John Christian Laursen (eds.) *Millenarianism and Messianism in Early Modern Europe* (Dordrecht, forthcoming).

<sup>50</sup> Van Bunge, *From Stevin to Spinoza*, 138.

<sup>51</sup> *Ibid.*, 139–140; Wiep van Bunge, 'Balthasar Bekker on *Daniel*. An Early Enlightenment Critique of Millenarianism', in: *History of European Ideas* 21 (1995), 659–673.

## MEDICINE AND PHILOSOPHY IN LEIDEN AROUND 1700: CONTINUITY OR RUPTURE?

HENRI KROP

In 1727 Johannes Oosterdijk Schacht (1704–1792), later professor of medicine at Utrecht, delivered his inaugural address as professor of philosophy at Franeker, the Frisian university later abolished by Napoleon in 1811.<sup>1</sup> The theme of the oration of this pupil of the physician Boerhaave, and of the philosopher Willem Jacob 's Gravesande who dominated Dutch Newtonianism between 1717 and 1742, was the close relationship between philosophy and other sciences, especially medicine. Apologizing for his youth—he was only 22—he said he would not tread in the steps of his predecessor, the last Cartesian professor in the Netherlands, Ruardus Andala (1665–1727), but by means of reason and experience put on stronger wings than Icarus and fly into heaven.<sup>2</sup> Oosterdijk Schacht touches here on the two keynotes of Leiden Newtonianism: reason and experience are the two sources of our knowledge, the two kinds of evidence available to us, the two foundations of the sciences, which on the one hand consist of metaphysics, logic, rational psychology, ethics and mathematics, and on the other hand of physics, history and theology.<sup>3</sup>

The new professor began his address by referring to Cicero's famous dictum that all the sciences and arts which form part of human culture are linked, the bond between them being philosophy.<sup>4</sup> The theologians are reminded that philosophy is indispensable

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<sup>1</sup> See S.H.M. Galama, *Het wijsgerig onderwijs aan de hogeschool te Franeker (1585–1811)* (Franeker, 1954), 151–153.

<sup>2</sup> Johannes Oosterdijk Schacht, *Oratio inauguralis de arcto, quo philosophia cum omnibus, praesertim medicis scientiis nequitur, vinculo* (Franeker, 1728), 65 and 70–71: 'Duae autem accipiemus comites, fidissimas & summe necessarias, quibus si destitutus forem, vel ipse certo certius abereram, Rationem scilicet atque experientiam, quas arctissimo copulatas vinculo, qui separare voluerit (...) iterque feliciter cum successu emetiri poterit numquam.'

<sup>3</sup> See 's Gravesande's rectorial address *De evidentia Mathematica et Morali* of 1724 and his inaugural address as professor of 'the whole' of philosophy *De vera, & numquam vituperata philosophia* of 1734. For an analysis: G. Gori, *La fondazione dell'esperienza in 's Gravesande* (Florence, 1972), ch. 3 and C. de Pater, *Willem Jacob 's Gravesande. Welzijn, wijsbegeerte en wetenschap* (Baarn, 1988), 40–46.

<sup>4</sup> Oosterdijk Schacht, *Oratio de arcto ... vinculo*, 2: 'Omnes omnino artes atque scientias, illas praesertim quae ad humanitatem pertinent, communi vinculo inter



for them, since it establishes the existence of God and so makes theology a science. As one of his predecessors, Herman Alexander Röell, pointed out, how could revelation convince the atheist if God did not employ the concept of a natural intellect clarified by philosophy?<sup>5</sup> Röell, professor of philosophy and theology at Franeker between 1685 and 1704, developed a form of Cartesianism which combined both sciences. His inaugural address *De religione rationali* ('On rational religion') had caused a great stir both in the Dutch church and in philosophical circles. The physico-theologian Bernard Nieuwentijt is also mentioned, as a philosopher whose *Regt gebruik der wereldbeschouwingen* ('Correct use of world views', 1715) translated into English as *The religious philosopher* (1718), is deemed useful in interpreting the Bible.<sup>6</sup> After a summary discussion of jurisprudence, the speaker deals with his main subject: medicine, a science which is justly called the physics of the human body.<sup>7</sup> Due to the central importance of philosophy, and especially of mechanics, all the great physicians were also great philosophers. Oosterdijk Schacht adduces the examples of Hippocrates, the Italian physicians Giovanni Alphonso Bellini (1647–1704) and Lorenzo Borelli (1608–1679), and Boerhaave. Without chemistry the phenomenon of the blood is incomprehensible; without some knowledge of mechanics, chewing for example cannot be understood, and without a knowledge of Newton's discoveries in the field of the propagation of light and sound, the operation of our senses remains incomprehensible.<sup>8</sup> Medicine is not to be reduced to physics, however, for the causes of diseases cannot be deduced from our knowledge of the elements of purely physical things.<sup>9</sup> This had been made evident by the Leiden professors Burchard de Volder, who taught philosophy between 1669 and 1704, and Archibald Pitcairne, professor of medicine for only fifteen months between 1692 and 1693.

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se collegari (...) vetus est jam ab antiquissimis usque ducta temporibus opinio.' The reference is to Cicero, *Pro Archia poeta* I, 2.

<sup>5</sup> *Ibid.*, 28–29.

<sup>6</sup> *Ibid.*, 31: 'illud Hollandiae nuperumque Sidus, prius certe, si quis alius, Philosophus summusque Mathematicus B. Nieuwentijtius.'

<sup>7</sup> *Ibid.*, 45–46: 'Medicinam enim nihil esse aliud quam humani corporis Physicam tam evidens opinor, ut evidentius nihil.' That is the reason why one should not say 'ubi Medicus incipit, ibi Physicus desinet' but 'ubi Medicus incipit, ibi Physicum pergere'.

<sup>8</sup> *Ibid.*, 52, 55 and 56–57.

<sup>9</sup> *Ibid.*, 46: 'nolim putetis, A.A. (...) ut totam quantam ex primis rerum Physicarum elementis hauriendum esse Medicinam, morbique causas ex intimis, at simul obscuris physicae penetralibus investigandas (...) esse censeam.'

Oosterdijk Schacht, Newtonian professor of philosophy, was not the only scholar in the Republic who acknowledged a continuity in the teaching of philosophy and medicine at Leiden from the time when the influence of Bellini and Borelli—and Descartes, one should add—was first being felt. Twenty years earlier, Boerhaave himself had called attention to this continuity in several of his orations. In *De usu ratiocinii mechanici in Medicina* ('The use of mechanical reasoning in medicine', 1702), for example, he ranged Descartes, Huygens, Pitcairne, Borelli and Bellini together as men who had taught the physician the use of applying mechanics to medical matters.<sup>10</sup> Modern historians on the contrary, such as Ferdinand Sassen in his classic *Geschiedenis van de wijsbegeerte in Nederland*, and Edward Ruestow tend to call into question this notion of an ongoing tradition.<sup>11</sup> They emphasize the rupture between the mechanical philosophy of the Cartesian Theodoor Craanen (1620–1690), Pitcairne's predecessor, who became professor of medicine at Leiden in 1670, the same year De Volder became professor of philosophy, and the more experimental attitude which became fashionable after 1700. This has had two consequences. On the one hand, modern scholars are inclined to underestimate the importance of the Leiden professorship of the Newtonian Pitcairne. The Dutch historian of medicine G.A. Lindeboom, for example, called it a short interlude in his career that left hardly any trace in the teaching of philosophy and medicine at the University.<sup>12</sup> On the other hand, the part played by De Volder has been generally reviewed. It is argued that at the end of his life De Volder was converted from his former Cartesianism to Newtonianism.<sup>13</sup> It has been emphasized that he was probably the first Dutch scientist to study Newton's *Principia* and it was under his supervision that the

<sup>10</sup> *Opuscula omnia* (Paris, 1733), 23: 'Evolvet Archimedis, Cartesii, Stevini, Borelli, Mariottii, Hugenii, Neutoni, & Bellini scripta, qui re non verbis convici cupit' and 27: 'tum quae illorum laudato excitatus labore, orbi erudito Problemata proposuit, demonstravitque, nobile quodam hujus Lycae ornamentum Pitcarnus.'

<sup>11</sup> F. Sassen, *Geschiedenis van de wijsbegeerte in Nederland tot aan het einde van de negentiende eeuw* (Amsterdam-Brussels, 1959), 223–227 and E.G. Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden* (The Hague, 1973), 114–116.

<sup>12</sup> G.A. Lindeboom, 'Pitcairne's Leyden Interlude Described from the Documents', in: *Annals of Science* 19 (1963), 273–284.

<sup>13</sup> For example F.L.R. Sassen, 'The Intellectual Climate in Leiden in Boerhaave's Time', in: G.A. Lindeboom (ed.) *Boerhaave and his Time* (Leiden, 1970), 7: 'By then, he himself had long since found his way from Descartes to Newton.'

first physical laboratory was set up in Leiden in 1675.<sup>14</sup> According to De Volder himself, it was the first institution of its kind in the world.<sup>15</sup>

The neglect of Pitcairne's stay in the Republic and the belief in a conversion of De Volder, are both part of the traditional view of the history of philosophy in the Netherlands around 1700. It is generally assumed that only in the second decade of the eighteenth century did Newtonianism begin its triumphal march, with the appointment in 1717 at Leiden of Willem Jacob 's Gravesande, who was backed by Newton himself. Schofield, in *Mechanicism and Materialism*, acknowledges Boerhaave's favourable references to Newton beforehand, but according to him Leiden's enthusiastic approval of Newton did not become fully apparent until 1715, that is to say when Pemberton during his student time at the University called Boerhaave's attention to Newton's *Opticks*.<sup>16</sup> Another reason was 's Gravesande's visit to England as secretary to the Dutch ambassador in 1715. The lawyer 's Gravesande made personal contact with Newton on that mission, attended Desaguliers' lectures, and returned to Holland a convinced experimental Newtonian.

The traditional view stressing the rupture between Cartesianism and Newtonianism in Leiden is at first sight quite convincing. From 's Gravesande onwards, Dutch philosophers and physicians saw themselves as Newtonians, and 's Gravesande entitled his principal manual *Physices elementa mathematica, sive introductio ad philosophiam newtonianam* ('The mathematical elements of physics: an introduction to the Newtonian philosophy'). It ran to four editions between 1720 and 1750, and to six editions in the English translation. In the preface the Newtonian method of philosophizing is contrasted with that of Descartes: the French philosopher had assumed unsound hypotheses concerning the unknown substances of things.<sup>17</sup> As a result of this the Dutch Newtonians became used to treating Descartes as the

<sup>14</sup> Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden*, 110 and 96. He refers to Le Clerc's remarks in his 'Eloge de feu Mr. De Volder', in: *Bibliothèque choisie* 18 (1709), 379–380.

<sup>15</sup> Burchard de Volder, *Oratio qua consentientibus curatoribus, sese laboribus academiae abdicavit* (Leiden, 1705), 33: 'Vos, quod nec in hac Academia, nec forsitan in ulla factum ante unquam fuerat, & quod postmodum nonnullae e vicinis ex parte imitatae sunt, me suasore, Theatrum in qua publice experimentis physicis fierunt, exstruxistis, et mihi curam demandastis.'

<sup>16</sup> Robert E. Schofield, *Mechanicism and Materialism. British Natural Philosophy in an Age of Reason* (Princeton, 1970), 136.

<sup>17</sup> W.J. 's Gravesande, *Physices elementa mathematica, sive introductio ad philosophiam newtonianam* (Leiden, 1720), II–III and IX–X (the reference is to the paginated fourth edition of 1748).

subject of their scorn. However, behind this evident rupture there is in fact a more gradual evolution of ideas partly provoked by the close relationship between medicine and philosophy at that time. In my view, Pitcairne's stay in Leiden was no interlude leaving hardly a trace and De Volder never had to change his ideas radically: Cartesianism and Newtonianism are in some respects to be seen as twins and not as implacable antagonists. In this paper, I shall first deal with Pitcairne and his Cartesian predecessors in the medical faculty and then with De Volder, the key figure in Leiden Cartesianism around 1700.

### I. *Pitcairne and his Cartesian Predecessors*

Archibald Pitcairne was born in 1652 in Edinburgh.<sup>18</sup> In 1668 he became a student of divinity, but in 1672 went to France, studying first law and then medicine. Back in Scotland he was one of the founding members of the Royal College of Physicians in Edinburgh and in 1685 he became professor of medicine at the University of Edinburgh. At that time he made the acquaintance of David Gregory (1661–1708), who under Newton's protection had become professor of mathematics at Oxford. Together they studied Newton's *Principia*. About the same time Pitcairne became acquainted with the works of Bellini and Borrelli, the famous Italian iatromechanists.

During the nineties he read and re-read Bellini's *De urinis et pulsibus* ('On urine and the pulse', 1683), as Pitcairne stated in a letter of 22 June 1692 included in the 1696 Leiden edition of Bellini's *Opuscula aliquot ad Archibald Pitcairne*.<sup>19</sup> In the same decade Pitcairne became involved in the so-called fever dispute, recently analysed as a controversy between Sydenham and Newton.<sup>20</sup> The Pitcairnes and the Gregories were episcopalians. During the Glorious Revolution they sided with the Stuarts. Pitcairne's satires on the Scottish Presbyterian clergy earned him a reputation as an unbeliever. His defence

<sup>18</sup> For the life and works of Pitcairne: Anita Guerrini, 'Archibald Pitcairne and Newtonian Medicine', in: *Medical History* 31 (1987), 70–83 and 'The Tory Newtonians: Gregory, Pitcairne, and Their Circle', in: *Journal of British Studies* 25 (1986), 288–311.

<sup>19</sup> The unpaginated preface is a letter of Bellini to Pitcairne dedicating the work to the Leiden professor.

<sup>20</sup> A. Cunningham, 'Sydenham versus Newton: the Edinburgh fever dispute in the 1690s between Andrew Brown and Archibald Pitcairne', in: W.F. Bynam and V. Nutton (eds.) *Theories of Fever from Antiquity to the Enlightenment* (London, 1981), 85–99.

of the Jacobite cause and his aversion to William III hardly recommended him for a professorship at Leiden, for the King-Stadholder had a strong influence on university affairs. In 1691 the governors of Leiden University were still looking for a suitable candidate to fill the vacant chair of Lucas Schacht, who had died two years before.<sup>21</sup> In 1672 the founder of the Leiden iatrochemical school, Franciscus de le Boë, or Sylvius, as he was called in Latin, had died. Sylvius was a gifted practitioner, who dissected dead patients in the St. Cecilia Guesthouse, the first university hospital in Europe. Although he believed that medicine should be based on chemical theory, it is said that his work as a physician was animated by a rare empirical spirit.<sup>22</sup> His ideas remained influential, however, even after the Cartesians Florentius Schuyl (1619–1669) and Theodoor Craanen had introduced iatromechanics in Leiden.<sup>23</sup>

Florentius Schuyl, professor of philosophy at the Athenaeum Illustre of 's-Hertogenbosch, published Descartes' *Traité de l'homme* in 1662, adding to it an extensive defence of Cartesian dualism.<sup>24</sup> This edition earned him a post at Leiden, where he was appointed professor of medicine in 1664. Further proof of his Cartesian persuasion can be found in his Leiden address of 8 February 1667, *De veritate scientiarum* ('On the truth of the sciences'), printed posthumously in 1670. In this oration he tried to demonstrate that the principles of Descartes are identical with those of Augustine and even with those of Calvin. The starting point of all philosophy is the clear and distinct idea of God contained in the human mind, which cannot be reduced to the senses.<sup>25</sup> It not only serves as the premise of the ontological argument for God's existence and His attributes, but is

<sup>21</sup> Lindeboom, 'Pitcairne's Leyden Interlude', 273.

<sup>22</sup> J.A. van Ruler, 'Medical Science in the Seventeenth Century', in: Michael Waelent and Claude Weber (eds.) *De Vésale à Laënnec* (Luxembourg, 1995), 62–65 and Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden*, 6.

<sup>23</sup> In his *Oratio de vita et obitu cl. Bernardi Albini* (Leiden, 1721), 20, quoted from A.M. Luyendijk-Elshout, 'Oeconomia Animalis, Pores and Particles. The Rise and Fall of the Mechanical Philosophical School of Theodoor Craanen (1621–1690)', in: Th.H. Lunsingh Scheurleer and G.H.M. Posthumus Meyjes (eds.) *Leiden University in the Seventeenth Century. An Exchange of Learning* (Leiden, 1975), 294–307.

<sup>24</sup> G.A. Lindeboom, *Florentius Schuyl (1619–1669) en zijn betekenis voor het cartesianisme in de geneeskunde* (The Hague, 1974), 76–81. Schuyl's argumentation is given in the 33 unpaginated pages of the 'Ad lectorem'.

<sup>25</sup> Florentius Schuyl, *De veritate scientiarum et artium academicarum, qua, demonstrata mentis & Dei Opt. Max. existentia, omnium Scientiarum & Artium certitudo ex evidenti Dei & nostri cognitione indubitato deducitur* (Leiden, 1673), 7–8. This work is reprinted as an appendix in Lindeboom, *Florentius Schuyl (1619–1669)*.

also the origin and the criterion of truth in all the human sciences. All creatures, including man, are finite beings dependent on God, who is not only the Creator, but also the Conservator of the universe. He rules our thoughts and provides the mind with the means for reaching its goal of a perfect knowledge of both God and itself. The body is an obstacle to this end, being the source of all diseases, and by means of its affections and passions tyrannizing the intellect.<sup>26</sup> In this oration a clear-cut Cartesianism is expressed not only by focusing on the dualism between mind and body, that is to say the intellect and the senses, but also by emphasizing evidence as the criterion of truth. However, just like Sylvius, Schuyl had an *empirical* attitude towards the medical sciences. He defended Sylvius' theories in several disputes, and his fame is partly based on an experiment with a dissected dog.<sup>27</sup> This combination of experimentalism and Cartesianism presented Schuyl with no problem, because according to him it is by means of the senses that we open the 'book of nature'. By proceeding methodically from observation, the senses will unlock nature's hidden secrets by submitting them to reason:

Accurate knowledge, therefore, is the foundation of Medicine, and when in possession of such a certainty the philosophically-minded physician may be called 'god-like'. Medicine will never fail and physicians will never err if they heed the voice of Nature and study the symptoms of diseases.<sup>28</sup>

The Cartesianism in Theodoor Craanen's writings is less clear. In 1670 he was appointed professor of philosophy in the States College, an institute established by the States of Holland for the education of ministers of the Reformed Church. But after some clashes, on account of his Cartesian leanings he was dismissed. However, the curators of the university offered him the medical chair of Sylvius instead. Herman Boerhaave stated half a century later that Craanen spent little time on clinical work, and that the teaching of geometry appealed more to him than visiting the sick.<sup>29</sup> In 1689 Craanen died as physician to the Elector of Brandenburg.

Craanen left three 'curious writings'—as they are described by the Leiden medical historian Luyendijk-Elshout.<sup>30</sup> In the first place

<sup>26</sup> *Ibid.*, 18–21.

<sup>27</sup> Lindeboom, *Florentius Schuyl (1619–1669)*, 84–93. The proof was included in his posthumous *Pro veteri medicina* (Leiden-Amsterdam, 1670), 88–89.

<sup>28</sup> Schuyl, *De veritate scientiarum*, 21, 23.

<sup>29</sup> Luyendijk-Elshout, 'Oeconomia Animalis', 298.

<sup>30</sup> *Ibid.*, 299.

*Oeconomia animalis ad circulationem sanguinis breviter delineata* ('An Animal economy delineated in accordance with the circulation of the blood'), followed by *Generatio hominis ex legibus mechanicis* ('The generation of man by mechanical laws'). The *Animal economy* is in two parts. It was written in the scholastic question-form and consists of hundreds of questions and answers, for example: what is the nature of saliva? Craanen's answer is that it is plain water, but that it has acid and salty eel-like particles with sharp edges. The correctness of this definition is proved rationally a priori and a posteriori by experience: the particles have to be small otherwise they could not penetrate the pores of the saliva-vessels. We know by experience that a salty and acid residue is left after heating.<sup>31</sup> Another question from the appendix to the book entitled *The generation of man* is why the period of pregnancy is nine months.<sup>32</sup> The answer that this is due to a lack of food in the belly of the mother is according to Craanen erroneous, since after birth the baby finds plenty of food in the mother's breasts. Craanen believes that the cause of birth is an excess of meconium, a mixture of phlegm, bile and pancreatic liquor. The excess of meconium irritates the fibres of the lower spirits and induces a motion of the foetus which leads to a breaking of the waters. Another question is why women have a monthly cycle. Craanen observes that it is a popular belief that the moon induces the menstruation of old women and the new moon of girls. Although he thinks this is not quite correct, he considers it to be an incontestable fact that there is a connection between the phases of the moon and menstruation.<sup>33</sup> In Craanen's work there is much fabling of this kind, but his approach demonstrates openness to observation and experience.

In 1689 Craanen published a physico-medical treatise on man. In the first chapter he explained his method as follows: 'In this book we shall try to adhere to the same method that was followed by our philosopher René Descartes in his *Treatise on Man*', the work published by Schuyt.<sup>34</sup> Craanen's third book was a so-called medical

<sup>31</sup> Theodoor Craanen, *Oeconomia Animalis* (Amsterdam, 1703), q. 2, 2–3: 'Resp: Illam non est simplicem aquam, uti veteres voluere. (...) Praeter particulas aqueas id est flexiles, & exiquarum anguillarum instar lubricas, eum etiam habere *salisas & acidas* id est acicularum instar pungentes & instar cultellorum ex uno, vel utroque latere scindentes, possumus a priori & posteriori demonstrare (...) Idem testatur experientia: si etiam salivam examini chymico subjicimus, obtinemus inde & salem & spiritum acidum.'

<sup>32</sup> Craanen, *Generatio hominis*, q. 29, 298.

<sup>33</sup> *Ibid.*, q. 7, 280–281.

<sup>34</sup> Theodoor Craanen, *Tractatus Physica Medicus de Homine in quo status ejus tam na-*

practice: a list of diseases with their cure. In the preface Craanen deplors the exclusive reliance of physicians on fallacious experience which does not take reason and causal explanation into account. They are like theologians discussing God without the Bible or lawyers discussing law without being legal scholars.<sup>35</sup>

In 1685 Borelli's *De motu animalium* ('On animal motion') was published in Leiden, and in 1686 his *De vi percussione* ('On the power of percussion') followed, which was edited by Johannes Broen (1670–1703), one of Craanen's pupils. The medical ideas of Descartes were, however, contested in Leiden during the eighties. The anatomist Antonius Nuck (1650–1692), for example, argued that the pineal gland could never be the centre of the brain from which the animal spirits reach the nerves. This criticism of Descartes is interpreted by Luyendijk-Elshout as marking the end of iatromechanicism,<sup>36</sup> but the German scholar Christian Strom, in the introduction to a defence of the mechanical method in medicine written at Leiden in 1706 and dedicated to Pitcairne, which was contained in the Italian editions of his works, heralded Descartes as the founder of iatromechanics, since he was the first to consider the human frame as a physical body obeying the laws of mechanics. He added piously, however, that Descartes, being human had erred, just as his successors Borelli, Bellini and Pitcairne had done.<sup>37</sup>

Looking at the development of medicine, it is reasonable to assume that the governors of Leiden university were looking for an independent scholar working in the tradition of iatromechanicism. Pitcairne accepted the offer of the professorship immediately, and delivered his inaugural address on 28 April 1692, his main thesis

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*turalis, quam praeternaturalis quo ad theoriam rationalem mechanice demonstratur* (Leiden, 1689), c. 1, 3.

<sup>35</sup> Theodoor Craanen, *Lumen rationale medicum, hoc est praxis medica reformatata, sive animadversiones medicae theoretico practicae in Henrici Regii Praxim medicam* (Middelburg, 1686), x3v-r: 'Nulla alia est ratio, quam vero lumine per plurimorum medicorum destitutorum (magis suae fallaci experientiae, quam sana et infallibili ratione fidentium) lachrymabundi videamus tot quotidianos perpressos errores (...) Quid enim quaeso theologus absque novisse Sacra Biblia? Quid juris prudens absque legum scientia, quid denique medicus cujus ingenium vera, & invicta ratione non est excultum?'

<sup>36</sup> Luyendijk-Elshout, 'Oeconomia Animalis', 302–303.

<sup>37</sup> Christian Strom, *Ratiociniorum mechanicorum in medicina usus vindicata*, in: Archibald Pitcairne, *Elementa medicinae ... Opuscula* (Venice, 1733), 133 (=233): 'Si erravit, Homo erat, nihil humani a se alienum putans (...), omnem talem exhaurire ob easdem plane difficultates non potuit veritatem.' The date of 1706 is found in a papyrus on page 236.



being that the profession of the physician should be free from the tyranny of any philosophical sect. The testimonies of his teaching at Leiden are four disputations defended during the first half of 1693.<sup>38</sup> The subject-matter of all four is related to problems arising from the circulation of the blood, such as its circulation in the smallest vessels and the movement in the stomach, which changes food into a form adaptable to the blood. In 1701, these disputations, together with two others and the inaugural address, were published in Rotterdam by Van Leers and dedicated to Lorenzo Bellini. Later editions were published in Edinburgh and Venice, and in 1715 an English translation appeared. According to Schofield, Pitcairne's other main work, his *Elementa medicinae physico mathematica* ('Physico-mathematical elements of medicine'), was based on his Leiden lectures. It was, however, only published in 1717, four years after his death.<sup>39</sup> After this London edition, reprints followed in The Hague, Leiden and Venice, mostly together with his dissertations. From the Italian editions the *Epistola Archimedis ad regem Gelonem, qua plurimum notatu digna de Animae origine, de Religionum institutione atque de superstitione, de prodigiis & vaticinationibus continentur*, which describes the invention of religion, is remarkably absent.<sup>40</sup>

The governors were impressed by Pitcairne's performance as professor, and decided to raise his salary to 1600 guilders, which was then quite exceptional for an incumbent of a medical chair. Yet he decided to leave the university, and during the summer of 1693 he left for Edinburgh and did not return to resume his classes in the autumn. Several reasons have been suggested for this sudden departure. After his return to Edinburgh he had married his second wife, and she was unwilling to leave Scotland. Some have pointed to political and religious convictions, others to problems with his teaching.<sup>41</sup> In the Scottish capital he once again became involved in the fever dispute. After an interval of more than ten years, he

<sup>38</sup> Respectively *De circulatione sanguinis per vasa minima* of Jan 17th. Respondens: Gregorius Hepburne, Scotus; *De caussis diversae motus qua fluit sanguis per pulmonem natis & non natis* of April 1st. Respondens: Jacobus Johnston, Scotus; *De motu quo cibi ventriculo redigentem ad formam sanguini reficiendo idoneam* of April 18th. Respondens: Hubertus Beckers, Lugduni Batavorum and *De circulatione sanguinis in animalibus genitis & non genitis* of June 6th. Respondes: Gregorius Hepburne once again.

<sup>39</sup> Schofield, *Mechanicism and Materialism*, 50.

<sup>40</sup> On this work, see: Guerrini, 'Archibald Pitcairne and Newtonian Medicine', 72–73.

<sup>41</sup> Lindeboom, 'Pitcairne's Leyden Interlude', 280 and 282. The last phrase is based on a remark of Bayle in a letter of 7 March 1697, in: *Oeuvres diverses* (The Hague, 1737), IV, 736.

resumed lecturing at the new school of medicine founded at the University of Edinburgh in 1705, but he published hardly anything new apart from poetry. He died in 1713, but the works written during his Leiden period remained in print for several decades.

## II. *Pitcairne's Medical System*

The introduction to Pitcairne's system is provided by his inaugural address, which at that time the professors often published together with their manual. Pitcairne maintains that medicine is independent of philosophy since it has a different origin. Lacking clothes and protection, the first man was fully exposed to the elements. On account of the weather and lack of food he often became ill, and in order to save his body and take care of his cattle he learned the art of medicine. Philosophy on the other hand is the result of leisure, and has as its object the perfection of the soul. The necessity that produces medicine forces physicians to accept as true only that which is certain and beyond dispute.<sup>42</sup> Whereas the mark of true medicine therefore is agreement, that of philosophy is discord. Physicians have, however, been led astray by copying the quarrelling of the philosophers. As a result, the pristine purity of their art has been contaminated. Philosophers have always paid attention to myths and to the prejudices of the vulgar, and have allowed their minds to be captivated by the leaders of various schools. Love of a sect has thus prevailed over the love of wisdom. At first sight Pitcairne's statements, amounting to the separation of medicine and philosophy, seem to be opposed to the views of the Cartesian physicians discussed earlier.

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<sup>42</sup> Archibald Pitcairne, *Oratio inauguralis, qua ostenditur, Medicinam ab omni Philosophorum secta esse liberam*, in: *Elementa medicinae*, §2, 111: 'Ut itaque libere eloquar quae sentio, videtur mihi medendi peritia studio philosophica esse haud paulo antiquior, quippe cum hominis pro se quisque corporis, aut animi gratia & mederi & philosophari coeperint, medendi tamen perpetuae, philosophandi tantum fortuitae fuere caussae. Nam frugibus primo, dein pecore prisca gens mortalium vitam in agris inopem caelique injuriis opportunam tolerebant, aetusque & frigoris incommoda senserant, hoc est, aegrotaverant, priusquam vestimenta & domicila prospexissent. Illa primordia morborum, hae prima fuere remedia. Sed & pecora brevis aevi morbisque non olim minus quam nunc obnoxia medendi necessitatem, adferebant. (...) Verum ad philosophandi tam demum hominis accessere (...) & per otium facultates rerum expendere caeterisque mortalibus animi virtute se praestare.' See also §4: 112: 'In Medicina facienda, vel docenda non decet pro vero affirmare de quo usque adeo sumus incerti (...) Hinc sequitur non licere, id in Medicina tradenda vel faciendo pro principio adhibere de quo disputant viri et mathematice docti.'

However, it will appear that the Newtonian Pitcairne and the Leiden Cartesians share the fundamental conviction that the human body is subjected to mechanical laws.

Philosophy has been led astray by its pretentious attempt to investigate the physical causes of natural things while paying no attention to their actual properties. Many things have been assumed on the basis of very little data. Our knowledge is limited to the relations in which things stand to one another, and the laws and properties of the powers which enable them to produce changes in some things and to become altered by other things. The physician, therefore, should not deduce the causes of diseases and the forces of medicaments from their physical causes but from their actions, that is to say from observation. Medicine should take astronomy as its model, for the laws that apply to the smaller bodies also apply to the stars and planets. Pitcairne adds that in his age no astronomer still attempts to explain the movements of celestial bodies by means of substantial forms, subtle matter or the accidental collision of atoms, and that the physician is therefore obliged to ban occult qualities, to do away with the fear of the vacuum and with substantial forms. If they do this, the fate of physicians will no longer be a miserable one, and medicine, like anatomy and botany, will once again enlighten the world with its art.<sup>43</sup>

There is a consensus in the secondary literature that Pitcairne's oration expressed an ideology drawn from the work of Newton.<sup>44</sup>

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<sup>43</sup> *Ibid.*, §5 112: 'Neque hoc mirum videre debet: cum enim sectarum patroni rerum naturam absolutas, caussasque intimas statim a principio neglecta proprietatem investigatione fuerint aggressi, adeoque postulatis multis, & datis paucis uterentur, fieri non potuit, ut non diversas sententias discederint.' §4: 'Causarum physicarum investigationem, qualem instituere valent Philosophi Medicis, neque utilem, neque necessarium: hae enim sunt de quibus sectarum patroni fere ab orbe condito in hoc usque temporum nequicquam litigarunt.' §5: '... adeoque Mediciis incumbit solum, ut vires medicamentorum & morborum, quae per operationes possunt invenire, expendant & ad leges revocent.' §7: 'sed medicos, oportet astronomorum institutum sibi imitandum proponere Hi non vulgo gratas, aut ab Oratoribus acceptas opiniones in artem suam adsciscere, neque motibus siderum expedientis invocare quantumvis populo placituram de mundo fabulam, sed observationes longe temporum locorumque intercapedine dissidentes.' §8, 113: 'Neque fas sit existimare corpora minora, quae Medici contemplantur iis legibus esse subjecta, quas Astronomi in majoribus illis deprehendunt. (...) Nemo nunc, ut opinor, in Astronomicis versatus quidquam praesidii in iis esse sentit quae hodie quoque inani disceptatione vexantur, neque in demonstrandis motuum caelestium affectionibus & symptomatis ullum a formis substantialibus, materia subtili aut fortuito atomarum congressi emolumentum elicit.'

<sup>44</sup> Guerrini, 'Archinald Pitcairne and Newtonian Medicine', 73–77; Schofield,

Scholars differ, however, as to the actual importance of Newton's ideas. It is said that the disputations appended to the oration constitute a progressive chapter-by-chapter demolition of Cartesian explanations, which were replaced by what Pitcairne believed to be Newtonian ones.<sup>45</sup> In the first disputation, however, Newton's name is mentioned only once, while the proof of certain calculations is carried out by means of Huygens' method. In the *Elements* Newton's—or Descartes'—name is not mentioned at all.<sup>46</sup>

Pitcairne's system in his *Elements* is prefaced by four basic postulates: 1. all matter is divisible; 2. there is a living body; 3. in this living body the blood circulates; 4. where blood circulates there is life, and where there is life the blood circulates.<sup>47</sup> These postulates are followed by one hundred definitions, in which life, sanity, temperament, fermentation and all kinds of diseases are dealt with. For example 1. life is the circulation of the blood pushed from the heart by means of the arteries and carried back by means of the veins; 2. health is the sound life, or a good blood circulation without any pain; 14. digestion is the transformation of food into chyle; 34. fever is the augmentation of the blood circulation, and 100. death is the most extreme disease, or the complete halt of the blood circulation.<sup>48</sup> After these definitions two hundred theses are added including, for example, 6. no body moves itself; 44. a living body consists of fluid and solid parts; 45. the parts of a body contain other parts or are contained by others, that is to say canals and liquids; 74. nobody is in perfect health and 78. diseases result from a reduction in the speed of the circulation of bodily humours.<sup>49</sup>

The reductionistic tendency of this system is clear: traditional concepts such as the temperaments and innate health are defined in terms of the circulation of the blood. The theses partly refer to all kinds of diseases and are not separately proved, as might be ex-

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*Mechanicism and Materialism*, 49–50, and Theodore Brown, *The Mechanical Philosophy and the 'Animal Oeconomy'* (New York, 1982), 214–221.

<sup>45</sup> Cunningham, 'Sydenham versus Newton', 89.

<sup>46</sup> Pitcairne, *De circulatione sanguinis*, in: *Elementa medicinae*, 120 and 122: 'quae demonstravit magnus Hugenius.' On Newton, 123: 'quod Geometria in tantum fastigium sit evecta a pluribus quidem peritissimis Artificibus praecipue tamen ab Isaaco Newtono, ut sperandum sit, ope principiorum, quae a magno illo viro sunt ostenta, inventum fieri, certius faciliusque vires & proprietates corporum medico usui & hominum solatio inventas.'

<sup>47</sup> Pitcairne, *Brevis conspectus*, in: *Elementa medicinae*, XIV. For Pitcairne's system: Brown, *The Mechanical Philosophy*, 226–237.

<sup>48</sup> *Ibid.*, XIV–XVII.

<sup>49</sup> *Ibid.*, XVII–XXIV.

pected of a book written in accordance with the geometrical method. The first, theoretical part uses the synthetical method starting from the elements, proceeding with health, the 'animal economy', illness and the method of healing, and arriving at the method of prescribing medicines. The second or practical part is organized in its own way starting with the head and ending with the stomach and female 'diseases' such as menstruation and difficult birth. After having determined by experience and reason the basic properties of the body—its divisibility, its movability and its division into what is fluid and solid, the human form is demonstrated to be a body just like any other. Pitcairne argues that that is why the laws of mechanics are applicable to it, but in the text of both the theoretical and practical part of the manual hardly any mathematical proofs are given. This seems to imply that the mechanical philosophy Pitcairne adopts is more like a general scheme, which leaves ample space for an empirical attitude. Such a method was hardly new in Leiden and he shared this combination with his predecessor Craanen and other Cartesian physicians, the most important of whom was Burchard de Volder.

### III. *De Volder's Empirical Cartesianism*

Burchard de Volder was born in Amsterdam in 1643 of Mennonite parents. He studied philosophy and medicine at the Athenaeum Illustre in his native town, in Utrecht and then in Leiden, where he took his degree in medicine in 1664 with a thesis on the fundamental concept of nature. After several years of employment as a physician of the poor in Amsterdam, he was appointed to the chair of philosophy in Leiden in 1670, the same year as Theodoor Craanen. Having been told that he should become a member of the dominant Reformed Church, he willingly complied with this requirement, stating afterwards that for a true Christian the confession is of minor importance.<sup>50</sup> During the 'Cartesian crisis' of 1676 he was engaged in defending the case of Cartesianism and opposing the policy of the Governors of the University. A libel he wrote together with Heidanus, professor of theology and former friend of Descartes, led to the dismissal of this eighty-year-old scholar, who assumed full responsibility for it. De Volder was also interested in the new experimental philosophy, however, and in 1674 visited England showing a keen

<sup>50</sup> Le Clerc, 'Eloge', 351–352.

interest in Boyle's vacuum pumps. In 1675 he received money from the governors to set up a *Theatrum physicum*, as he himself mentioned in his farewell address of 1705.<sup>51</sup>

With Huygens De Volder was also probably the first Dutch scientist to have read and studied Newton's *Principia*, which, as Ruestow contends, may have contributed to his disillusionment with Cartesianism. In a rather dramatic tone Ruestow depicts De Volder's wrestling with 'an extreme ideal of philosophical truth and certainty' based on reason alone which was 'ultimately incompatible with the aims and capacities of the new empirical science'.<sup>52</sup> Following Le Clerc's 'eulogy' in the *Bibliothèque choisie*, Ruestow underlines De Volder's growing dissatisfaction with the meagreness of man's reason and suggests that among his reasons for retirement was his unwillingness to continue to teach the Cartesian system. As evidence for this Le Clerc cited De Volder's 1698 address on 'The powers of reason', which he took as demonstrating its limits, especially in medicine, a science in which experimental research is essential. However, several medical disputations defended in the nineties as well as his medical thesis of 1664 show that De Volder was already convinced of the inevitability of the use of the senses in medicine.<sup>53</sup> Although Ruestow's view is well argued, it seems to me that there was never any radical change in De Volder's ideas on philosophy and medicine, and that he always advocated a Cartesianism open to experience.

De Volder graduated in medicine in 1664. In his thesis *On nature* he observed that 'all men unanimously acknowledge that from uncertain premises no certain conclusions can be drawn'.<sup>54</sup> Science should, therefore, be built on a foundation free from all doubt. Such a basis is only to be found in mathematics. The other sciences rest on premises devoid of absolute certainty. This is the reason for the mea-

<sup>51</sup> *Ibid.*, 362–364.

<sup>52</sup> Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden*, 111–112.

<sup>53</sup> *Exercitium medico-physico aphoristicum: de morborum causis*, Respondens Petrus Voogd of 1691. *Dissertatio physiologica prima, quae est de hominis automato, siver corpore animali*, Respondens Stephanus Huszthi Ungarus of 1693. *Disputatio philosophica de sensu brutorum*, Respondens Joh. Robbreghtsen of 1694. *Dissertatio physica, de circulatione sanguinis in foetu*, Respondens El. Petr. de Beaumont of 1691 and *Dissertatio physica, de carentia sensuum cognitionisque in brutis*, of the same year and with the same respondents.

<sup>54</sup> Burchard de Volder, *Disputatio medica inauguralis de natura* (Leiden, 1664), § 1: 'uno ore confitentur omnes, ex incertis nihil certi, ex falsis nihil veri deduci posse, omnesque proinde artes ac scientias si unquam in iis aliquid firmi, & certi cognoscere velimus certis & nulli dubitationi obnoxiiis fundamentis superstrui oportere.' (The text is unpaginated.)

gre progress they made in the course of so many centuries. Nowadays however, De Volder declares, philosophers are beginning to be versed in the art of doubt and to renounce the vice of believing without reason. With the exception of sense perception, present-day medicine contains hardly any certain knowledge. This is why real physicians unlike the so-called empiricists, who should be ashamed of themselves on account of their lack of causal knowledge, are obliged to combine experience with reason.<sup>55</sup> So, according to De Volder, the stupidity of 'empiricist' physicians who openly acknowledge their ignorance of nature as the cause of all bodily functions should be denounced; they behave like those who in admiring a clock attribute its action to a ghost moving its little wheels.<sup>56</sup> Causal knowledge, therefore, is fundamental to all the sciences. However, scholastic philosophy, although pretending to offer real knowledge, indulges in idle definitions postulating nature as being the principle of motion and rest and a primary force as being the cause and preserver of our body. According to De Volder, nature should be studied by its effects. Nature is the maker and preserver of our body, De Volder summarizes, the cause of its functions and the cure for its diseases. To that end it produces all its medicaments. It is clear that for De Volder nature is not something external to the body, but he explicitly abstains from any other definition. He confines himself to the analysis of our bodily functions: nutrition and the circulation of the blood are known by experience.<sup>57</sup> We perceive, for example, that the blood flows to the right ventricle of the heart mixed with lymph and chyle. Rarefied and warmed, the blood moves to the lungs, where it is changed by the air. Afterwards it reflows to the left ventricle of the heart. According to De Volder these facts are confirmed by experience. Their causal explanation, however, is difficult. He proposes fermentation and effervescence, that is the boiling over of the blood as explanatory

<sup>55</sup> *Ibid.*, §2: 'Cujus rei, ut in omnibus aliis scientiis, sic in Medicina illustre habemus exemplum. In ea enim praeter experimenta vix aliquod a ratione petitum certi invenire est. Nec mirum, cum illi, qui experientiae (qua sola contenti erant Empirici, qui suam in causis laesarum, functionum, & symptomatum inde orientium dandis ignorantiam ingenue confiteri non erubescerant) rationem adjungere velle videbantur, ac ideo Dogmatici vocabantur, ab ore Medici pendent vulgo, ut aliquid scire viderentur, fundamentorum loco, obscura quaedam & incerta, ex quibus suas postea deducebant ratiocinationes, obstruserint.'

<sup>56</sup> *Ibid.*, §3: 'qua in re similes mihi videntur illis qui cum Horologium quoddam artificiose (...) conflatur aspiciunt, effecta (...) vident, & (...) modum, quo & totum Horologium, & singulae ejus partes moventur, non comprehendunt, exinde velle concludere in illo (...) residere monstrum aliquod.'

<sup>57</sup> *Ibid.*, §5.

concepts, referring to Descartes and Sylvius. De Volder hesitates but considers the explanation given by Sylvius the most probable.<sup>58</sup> So already in his thesis of 1664 De Volder attempts to combine reason and experience.

De Volder was appointed professor of philosophy in 1670. Assuming the professorship of mathematics in 1682, he held an inaugural address on the union of the philosophical and the mathematical sciences. It falls into three parts. In the first he argues for the Cartesian presupposition that all our *knowledge* depends on the mind, saying that the sciences and the virtues are linked in similar ways: 'They imitate the connection existing between all things in nature in such a manner that they present nothing to the mind separately and in isolation'.<sup>59</sup> Arithmetic, for example, the science of numbers, is impossible if the order existing between the numbers is left out of consideration. What is more, since the mind is a small part of the divine substance, it contains within itself the origin of the sciences, its clear and distinct ideas being true. Consciousness both in the literal sense of knowing in general, that is to say with the Mind of God, and in the secondary sense of self-observation and self-experience, constitutes the final criterion of truth.

After having presented his Cartesian epistemology in outline, De Volder proceeds to the main subject of the oration: the relationship between philosophy and mathematics. In the first place mathematics should replace logic as the propaedeutic to the philosophical sciences, for unlike the other sciences it involves no prejudices and controversies. It therefore helps us to discover knowledge. For all science depends on certainty, that is to say truth, experienced by the mind. When the mind observes itself while studying a proof in the *Elements* of Euclid, it learns something of the first importance for a philosopher. On the other hand, learning by heart a series of vain syllogistic rules is of little use. According to De Volder, a logician is like someone who attempts to teach a blind man to distinguish colours. He compares the need for experiencing truth oneself in logic with medical reasoning: in medicine many remedies are discovered by means of accidental observations and the same applies in the art of reasoning, in which general rules are formulated on the strength of

<sup>58</sup> *Ibid.*, §9–11.

<sup>59</sup> Burchard de Volder, *Oratio de conjungendis philosophicis et mathematicis disciplinis* (Leiden, 1682), Av-Agr: 'ita & scientia nostra, quae, si vera sit, rerum naturam imitetur oportet, cohaerentia omnia, nihil separati secretique offeret menti.'



individual proofs. I would like to call attention to this observation.<sup>60</sup> It implies that according to De Volder, experience of oneself and reasoning go side by side, not only on the level of the mind but also on the level of our knowledge of the external world.

In the third and last part of his address De Volder maintains that mathematics and philosophy are related or, rather, that they are the same science, as is evident from the fact that their objects, the body and such properties as extension and figure, are identical. In nature, although innumerable causes generate their effects, motion is a more universal and basic cause. Without geometry, therefore, philosophers have tried in vain to discover the essence of motion. They chattered about instinct and about the internal principles of gravity, they have defined the light of the stars as an act of a translucent body as far as it is translucent and asked themselves pointless questions about the nature of that light. Only Galileo, by formulating by means of geometry the laws of the acceleration of free fall, has produced useful knowledge in physics. Without mathematics no philosopher can determine the quantity of water issuing from fountains and aqueducts, nor can he calculate the force of arrows, cannon balls or other projectiles. The mathematical knowledge of motion has also given rise to the 'most elegant' doctrine of the pendulum, and from this greater accuracy in determining time. The recent clocks based on oscillation would never have been invented had not Christiaan Huygens 'joined to the other sciences in which that great man excels, a recondite knowledge of the mathematical arts.'<sup>61</sup>

Ruestow, from whom I have borrowed the last quotation, regards De Volder's argument as implying the annulment of the traditional distinction between theoretical and practical science, as making the truth of physical theory depend on its usefulness and utilitarian advantages. He assumes that there is a tension between De

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<sup>60</sup> *Ibid.*, B3r: 'Nam ut Medicina multorum remediorum casu observatorum collectione primum inventa est, sic neque ars ratiocinandi aliter reperta est, quam multiplici observatione eorum, quae in mente sunt (...), ex quorum omnium collectione ipsa ars constat. (...) Hae itaque illae artes fiunt, quae non modo regulis, sed quod maximum est, quodque omnem rem conficit, frequenti exercitio eum menti nostrae ad omnes caeteras artes, scientiasve, ad omnia in vita occurrent, fructuosissimum confirment habitum, quo instructa nulla se veri specie decipi patiatur, sed errores expellat, (...) veritatem certo tramite investiget.'

<sup>61</sup> *Ibid.*, Cr: 'Quod inventum ut illustri Hugenio debet orbis litteratus, ita illi debuisse nunquam, nisi caeteris cum scientiis, in quibus excellit vir magnus, reconditam conjunxisset mathematicarum artium notitiam.'

Volder's abandoning the philosophical search for absolute truth and his Cartesianism.<sup>62</sup> However, I would like to draw attention to De Volder's tacit identification of philosophy and physics. Unlike his predecessors in Leiden, Franco Burgersdijk (1590–1635) and Adriaan Heereboord (1614–1661), he no longer discussed moral philosophy in his writings. Useful knowledge, for him, is knowledge which explains phenomena by means of their causes, and such a knowledge cannot be obtained by Aristotelian means. De Volder does not renounce the Cartesianism of the first part of his address, for unlike Scholasticism, mathematical philosophy is immediately evident to the mind. If the phenomena are explained by means of mathematical laws, we understand them with a certainty derived from our clear and distinct perceptions. De Volder, therefore, continues to adhere to Cartesianism and its criterion of truth.

So, during the 1690s the grip of Cartesianism on De Volder's thinking did not diminish. In 1695 he published a collection of disputations entitled *Exercitationes academicae quibus Ren. Cartesii philosophia defenditur adversus Petri Danielis Huetii ... censuram Philosophiae Cartesianae* ('Academic exercises in which the philosophy of René Descartes is defended against the critique of Pierre Huet'). An outline of the fundamentals of the Cartesian system is provided. It starts with a defence of universal doubt, and also involves consideration of the existence of the mind, the criterion of truth, the nature of mind, the idea of God, God Himself, the body, the world, and the three Cartesian elements, more or less in the same order in which these matters are presented in Descartes' *Meditations*.

In 1698 De Volder held a rectorial address *De rationis viribus et usu in scientiis* ('On the powers of man's reason and its use in the sciences'). This lecture is his swansong, for after this date he hardly published anything. It is considered to be his farewell to Cartesianism and to the iatromechanics of Theodoor Craanen. As in the inaugural oration, three parts are to be distinguished which have a certain dialectical relationship to each other. The first starts in a low key, underlining the impotence of human reason. Man, although God's most admirable creature, is unknown to himself, for his nature is a union of mind and body, the interrelatedness of which cannot be understood. Thoughts and bodily motions are so totally different that we are unable to acquire insight into the cause of their conjunction. We know by experience, however, that thoughts some-

<sup>62</sup> Ruestow, *Physics at Seventeenth and Eighteenth-Century Leiden*, 109.

times result from bodily motion, and that thoughts and acts of will influence our body. What is more, the mind almost always appears to be dominated by the body. Its faculties, the will and the intellect, are constantly subjected to the tyranny of the affections and the passions in such a way that some men have justly taken the misery of the human condition as paramount, and lamented the fact that the universe has been created.<sup>63</sup>

In the second part, however, the tables are turned. Cartesian epistemology is regarded as an antidote against the scepticism of the first part: 'The mind is able to produce in itself ideas and thoughts, that are the first and unique source from which all science flows'. The human race is capable of developing clear and distinct ideas, which are true. These ideas are of two kinds: some result from acts of the mind, others from external bodies, which are perceived by the senses. Ideas resulting from the perception of one sense such as those of colour and taste are untrue in the sense that they do not present the bodies as they are in themselves, but as we are being affected by them. Truth is not only a property of an idea taken by itself, but also resides in the connection of ideas: 'The foundation of truth is the coherence of ideas in which right reason, or rather reason rules, for false reason is no reason at all'.<sup>64</sup>

<sup>63</sup> Burchard de Volder, *Oratio de Rationibus Viribus et Usu in Scientiis* (Leiden, 1698), 1: 'Verius dixisset Hominem, quod ignorant omnes. (...) nemo tamen est, nemo, qui horum inter se nexum, in quo proprie consistit, Mente sua assequatur. Sunt enim duo haec, mens & corpus, res toto genere diversae. (...) Quare, dum inter haec nihil percipimus commune, Rationi omnis interclusa via est, qua progredietur a Proprietatibus unius ad Proprietates alterius, sive a cognitione ad motum, vel a motu ad cognitionem. 2: arctissimam, quae inter haec est societatem, ea lege ciisse, ut corporearum mutationum nonnullae cum mutationibus cognitionum, & hae vicissim cum illis pari ambulent passu. (...) Quae ubi cogito, vix me contineo, quin illis astipuler, qui ex ingenii caligne, rationis imbecillitate, argumenta sumunt quibus miseram humani generis conditionem deplorent.' (I quote from the edition in 8°. There is also an edition in 4° made by Elzevier.)

<sup>64</sup> *Ibid.*, 3: 'Mentis nostrae propria haec maxime Natura, atque vis est, ut quid sit, quid possit, non aliunde, quam ex se sola, addiscat. Cogitationes siquidem primum & unicum principium sit, ex quo, tanquam ex fonte, omnis scaturit scientia.' 4: 'Unde cum omnes, quae in nobis sunt ideae, vel cogitationis sint, vel extensionis, paret, his duobis rerum generibus omnem scientiam nostram contineri.' 11: 'Fundamentum veri, vel est idearum inter se nexus in quo recta viget Ratio, aut potius Ratio, nam quae recta non est, adversaria Rationi non Ratio est.' 10: 'Quod si Metaphysici Geometras imitentur; asseverent, quae penitus explorata habent, fileant de iis, quae hactenus occulta sunt, hoc ipso eveniet, ut omnes, quae nunc magnis hinc inde animis agitantur, controversiae, aut quam certissime dirimantur, aut tanquam incertae seponantur. Neque vero ulla alia ex dissensionibus hisce emergendi superest via.'

In the third part of his address De Volder returns to the more sceptical mood of the first part.<sup>65</sup> He maintains that in the sciences of bodies no certainty is possible without the senses. The example he adduces is medicine. According to some physicans everything in the human body takes place in accordance with the laws of mechanics, so the view of the empiricists, who do not aim at science, that is to say causal knowledge, but only collect observations arbitrarily, is to be rejected. It is impossible, however, to reduce medicine as a whole to physics by claiming that specific sense perception is indispensable for 'who could be foolish enough to pretend that he can deduce from the first elements of physical bodies the functions of the human body and derive the remedies of diseases from the impenetrable causes of nature?' Even mechanics cannot simply be deduced from geometry.<sup>66</sup> Sense perception and observation is especially needed in medicine, the science of the most complex body, for up until now it has often been impossible to demonstrate the relation between its simple senseless parts and the complex living whole. Reason forbids, then, to proceed any further on the basis of reason alone.

<sup>65</sup> *Ibid.*, 14–15: 'Nam, praepet hoc commune omnium de corporibus disciplinam vitium, quod absque sensuum & experientiae auxilio determinare nequeant; num quae ratione vel exactissima conclusa sunt, ulli in rerum natura corpori competunt; multa alia sunt, quae in singulis haram ad certam desunt scientiam.'

<sup>66</sup> *Ibid.*, 15–16: 'Haec autem multi ex primis physicarum elementis hauriendum contendunt, eosque demum veros Medicos agnoscunt, quae ex Physices penetralibus causas Morborum ratione investigare iisque cognitis remedia dein apta adhibere norunt ingeniose. Imo haec causarum notitia sese ab Empiricis distinguunt (...) Quae eo quidem verisimiliora videntur quo verius est, humanum corpus cum caeteris universi partibus apte cohaerens iisdem ex principiis conflari, iisdemque, quibus omnia legibus obsequi, (...) Quoscumque enim Physica recentiorum maxime industria hoc tempore fecerit progressus tam ad provecta est hactenus parum ea ut ex illius inventis parum ea corporis nostri effecta perpetuam argumentationem deducere qui tentant, multis partibus & absurdius & arrogantius facere nec injuria videantur; ac faceret ille, qui, perlectis communibus Euclidis notionibus, hoc solo instrumentum se putaret abunde ad Archimedeas unde perficiendas conclusiones.' 21: 'Instar haec enim & Physices principia hiatus est Ratione nostra inexplabilis.' 29: 'In Metaphysicis, Mathematicisque, quae solas ideas, easque clare & distincte perceptas tractant certa demum vigere ratiocinia. In hisce imperium obtinere & dominari Rationem. In Physicis vero, utut ex Hypothesi quam certissime concludamus incertum tamen relinqui, eane, quae in ratiocinio assumimus, copora revera sint an minus. Quod eo incertius est, quo ad corpora accedimus minus simplicia. Quare in rebus medicis, quae circa corpus omnium maxime compositum occupantur, non ex insensilium partium constitutione, quae, ut ignoratur hactenus, sic, nisi me animus fallit, aeternum ignorabitur, ratiocinandum esse; sed ex iis, quae experientia & sensibus de illis parent.'

Luyendijk-Elshout takes De Volder's address to be a fierce attack on the mechanical ideas of the Craanen school. Craanen's theory of the configuration of the pores is rejected by De Volder, she observes, in particular by referring to the work of Pitcairne.<sup>67</sup> De Volder refutes Craanen's analysis by pointing out that in physics a fluid makes no demands on the shape of the tube through which it flows, for if through a specific pore only corpuscles of a certain shape would pass, we would attribute to Nature a work of Art. Luyendijk-Elshout quotes these critical remarks on the pore theory in full, but even if we accept them as a critique of Craanen's medical theories, it is not at all certain that they amount to a full-scale attack on his methodological and philosophical framework. Both Craanen and De Volder consider the human body as being ruled by the same laws as all other bodies: the laws of mechanics. Medicine therefore should be based on philosophy without, however, being reduced to it.

#### IV. *Continuity or Rupture?*

In conclusion, I would like to make a final remark on Dutch Cartesianism as a whole. In his biography of Boerhaave, the Dutch historian of medicine G.A. Lindeboom, observes that René Descartes had a profound influence on philosophical and scientific thought in Holland. Even in medical circles he had many adherents. According to Lindeboom, this is to be explained by the fact that Descartes showed great interest in medical science. He was one of the first to accept Harvey's theory of the circulation of the blood and even tried to make anatomical observations. Descartes however 'did not long continue his work on the lines of true scientific research, and he soon returned to his reflections and a priori ideas. The system of Descartes is rationalistic past remedy, for according to his philosophy thinking is essentially the only source of knowledge'.<sup>68</sup> He therefore attempted to increase his knowledge by thinking and logical reasoning alone. Lindeboom 'proves' his verdict on Descartes by referring to an eighteenth-century biographer of Boerhaave. Contrary to this opinion, however, I would rather suggest that the image of Cartesianism advocating the invention of unverifiable hypotheses is largely a

<sup>67</sup> *Ibid.*, 19–21; Luyendijk-Elshout, 'Oeconomia Animalis', 304–305.

<sup>68</sup> G.A. Lindeboom, *Herman Boerhaave. The Man and his Work* (London, 1968), 266–267.

myth originating in Newtonian philosophy. The Leiden Cartesians always accepted the necessity of sense experience and did not indulge in a priori reasoning and logical deduction. Not unlike their Newtonian successors, they sought to *combine* reason and experience.

After 1700 Descartes was no longer the hero of Leiden philosophers. Cartesianism, however, was not dead, for in 1718, one year after 's Gravesande's appointment, the governors of the university appointed Jacobus Wittichius, a pupil of Herman Røell, as his colleague. In his inaugural address he once more referred to the *cogito* as the source of the sciences. The clearness and distinctness of the mind's ideas, Wittich observes, is the criterion for distinguishing between truth and falsehood. He proceeds by praising Descartes as being the first philosopher who developed definitive arguments against the sects of the sceptics, in particular the Pyrrhonists, and who demonstrated incontestably that only the intellect and not the senses are the foundation of truth. In this respect he was only preceded by Plato.<sup>69</sup> Absolute certainty, however, according to Wittich, is only to be reached in mathematics and metaphysics and not in the physical sciences. In this respect the difference between his view and De Volder's expounded some twenty years before is small. The basic philosophical scheme of mechanicism was not radically altered either. Boerhaave, for example, began his oration on the use of mechanical reasoning in medicine by extolling mechanics as a marvellous, almost superhuman science. He proceeded by observing that the best definition of the body has been given by the mathematicians and 'The senses testify, and reason pronounces that the human body is in no way different from the rest of the bodies when one scrutinizes its principles with serious observation'.<sup>70</sup> This implies that the human mechanism may be elucidated by geometry according to the same rules as any mathematical body. The human body is like a clock and

<sup>69</sup> Jacobus Wittichius, *Oratio de certitudine et evidentia in quibus philosophiae partibus illa reperiatur* (Leiden, 1718), 5. According to Gori, *La fondazione dell'esperienza*, 91, 's Gravesande's rectorial address *De evidentia* (1724) is a direct answer to Wittich's oration. He 'si muoveva ormai decisamente sul terreno della metodologia empirista'. 's Gravesande, however, accepted with Wittich the 'privileged character' of metaphysics, but he does no longer build the first philosophy on the *cogito*.

<sup>70</sup> Herman Boerhaave, *Opuscula omnia*, 17–18: 'Generalem corporis naturam nullo definivisse verius quam Mathematicos tam clare habeo, ut litem de fide hujus asserti expectam plane nullam. (...) Quarum utraque id evincit unum, humanum corpus idem esse natura totum quam contemplamur Universitati rerum. Sensu teste & ratione judice ...' The translation is from E. Kegel-Brinkgreve and A.M. Luyendijk-Elshout (eds.) *Boerhaave's Orations* (Leiden, 1983), 99.

the physician is to be compared to a craftsman knowing the causes of its functions and is able to correct its defects, Boerhaave argues. Mechanicism, therefore, did not fade away in Leiden the moment Newtonianism was introduced, and Oosterdijk Schacht had every right to feel part of a tradition that reached back to the middle of the seventeenth century.

## THE CULTURE OF MATHEMATICS IN THE EARLY DUTCH ENLIGHTENMENT

GEERT VANPAEMEL

The golden age of Dutch mathematics had effectively ended when, on 8 July 1695, Christiaan Huygens died in his home in Voorburg near The Hague. During the preceding decades it had produced such great mathematicians as Franciscus van Schooten, Johannes Hudde, Hendrik van Heuraet, Johan de Witt and others, but as the century progressed and prepared itself for entering the era of Enlightenment, the high level of research could not be continued. Notwithstanding the extraordinary talents of Huygens and the expertise of some of his contemporaries, Dutch mathematics slipped into a state of seemingly unambitious and insignificant contributions, well separated from the vanguard of international developments. Neither the short stays of Johannes Bernoulli and Jean Pierre de Crousaz in Groningen, nor the mathematical textbooks of the Leiden professor Willem Jacob 's Gravesande did much to stimulate Dutch mathematicians to produce something of historical significance. The slow and uneasy reception of the new mathematical methods of Leibniz and Bernoulli only underscores the general picture of intellectual decline within the Dutch mathematical community.<sup>1</sup>

How is mathematics to be incorporated within the general picture of the Enlightenment? In his small but illuminating book on Holland and the Enlightenment published in 1972, the historian Hajo Zwager attempted to interpret Dutch culture within a threefold division of the European Enlightenment.<sup>2</sup> From 1680 until 1725, European intellectual life on the whole was characterized by what he called 'a great hunger for facts'. Still under the influence of Cartesian rationalism, philosophically minded people professed a great belief in the powers of reason. The second period, roughly from 1725 to 1765, was characterized by opposition, mainly in France, to all kinds of authority, in particular to Christianity. In the third period people

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<sup>1</sup> A general analysis of the state of Dutch mathematics at the end of the seventeenth century can be found in Jan van Maanen, *Facets of Seventeenth-Century Mathematics in the Netherlands* (Utrecht, 1987) and Gerard Alberts *et al.*, 'Mathematics in the Netherlands. A Brief Survey with an Emphasis on the Relation to Physics, 1560–1960', in: Klaas van Berkel *et al.* (eds.) *A History of Science in the Netherlands. Survey, Themes and Reference* (Leiden, 1999), 367–404.

<sup>2</sup> H.H. Zwager, *Nederland en de Verlichting* (Haarlem, 1980<sup>2</sup>).



tended to be more critical in judging the great philosophers, showing less admiration for erudition, but at the same time exhibiting a better understanding of political issues and a growing appreciation of personal emotions. The Dutch contribution to this Enlightenment culture was, according to Zwager, mainly to be found in the first period. During the second, the Dutch intellectual scene was limited to a 'few scientists and scholars', who did gain international renown, but merely functioned to popularize English and German thought. Only at the close of the century, a newer awareness of political and emotional emancipation became apparent, although original contributions were rather insignificant.

A similar view was proposed by Ferdinand Sassen in his 1959 book on the history of philosophy in the Netherlands.<sup>3</sup> The third chapter, entitled 'Empiricist philosophy and Enlightenment' opens with the sobering remark that 'the picture of philosophical life in the eighteenth century was not very appealing'. In Sassen's view philosophy came to be dominated by the natural sciences, by which he meant the so-called experimental philosophy, and he quotes J.P.N. Land, who in 1899 wrote that 'the [typical] professor of philosophy had become in the first place an amateur of science.' The spread of Newtonianism, in which the Dutch Republic played an important role, signalled the decisive break from Cartesianism and in general from metaphysical speculation. Experiments had taken the place of pure thought. What was the place of mathematics in this shift? Neither Zwager nor Sassen, nor for that matter more recent authors like Wijnand Mijnhardt or Harry Snelders, have singled out any particular role for mathematics in shaping Dutch culture.<sup>4</sup>

The pivotal figure in this move towards empiricism is often taken to be Bernard Nieuwentijt (1654–1718), the town physician of Purmerend, who in 1715 published an international best-seller *Het regt gebruik der wereltbeschouwingen ter overtuiging van ongodisten en ongelovigen* ('The right use of contemplating the world in order to convince atheists and unbelievers').<sup>5</sup> In 1720 appeared his posthumous

<sup>3</sup> F. Sassen, *Geschiedenis van de wijsbegeerte in Nederland tot het einde der negentiende eeuw* (Amsterdam-Brussels, 1959), 217–268.

<sup>4</sup> Margaret C. Jacob and Wijnand W. Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century. Decline, Enlightenment and Revolution* (Ithaca-London, 1992). In this book, see the contribution by H.A.M. Snelders, 'Professors, Amateurs, and Learned Societies. The Organization of the Natural Sciences', 308–323.

<sup>5</sup> Several studies have been devoted from different angles to the pivotal figure of Nieuwentijt. See in particular Rienk H. Vermij, *Secularisering en natuurwetenschap in de zeventiende en achttiende eeuw: Bernard Nieuwentijt* (Amsterdam, 1991), 67–75 and

*Gronden van zekerheid, of de regte betoogwijze der wiskundigen, so in het denkbeeldige als in het sakelijke* ('Foundations of certitude, or the right method for arguing as it is practised by mathematicians, in theoretical as well as in practical matters'), in which he firmly argued for the insufficiency of abstract mathematical reasoning to establish certain truths about the real world. Nieuwentijt, who addressed his book in particular to the unbelievers and atheists (among whom he included all followers of Spinoza), stressed the need for empirical observations, on which all further arguments should be based, and without which no sound conclusions could be reached. This Newtonian approach, of which he was a great champion, in fact led directly to the second phase of the Dutch Enlightenment as indicated by Zwager and Sassen. As such, Nieuwentijt can be considered an important link in the continuity of Dutch philosophical endeavours during the early Enlightenment.

### I. *Mathematician-Philosopher*

Nieuwentijt has a place in the history of mathematics as one of the adversaries of the new Leibnizian calculus, on which he wrote several critical papers. This puts him in a singular position in the Dutch mathematical community, where interest in the calculus was not very widespread.<sup>6</sup> His writings are among the very few in Holland dealing directly with the calculus and as such Nieuwentijt is certainly one of the few representatives in his country of the modern approach to mathematics. His mathematical knowledge and skills were exceptional among his countrymen, and cannot be seen as the result of an active mathematical research community.

The new calculus, formally invented by Leibniz and Newton, was based on very shaky foundations. The essence of the method was an algorithmic use of so-called infinitesimals, infinitely small quantities which sometimes could (but in other circumstances could not) be equalled to zero. The infinitesimal method had been a matter of intense debate throughout the seventeenth century. Introduced in the 1620s by Bonaventura Cavalieri as a method of 'indivisibles', his approach was criticized and consequently corrected and further

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J. Bots, *Tussen Descartes en Darwin. Geloof en natuurwetenschap in de achttiende eeuw in Nederland* (Assen, 1972).

<sup>6</sup> P. Bockstaele, 'Mathematics in the Netherlands from 1750 to 1830', in: *Janus* 65 (1978), 67–95.

improved by a number of mathematicians.<sup>7</sup> When in 1684 Leibniz published his *Nova methodus*, in which the basic ideas of the modern calculus are finally brought together, he expressly avoided all foundational problems by giving no proofs of his practical rules. Instead he focused on the applications, which illustrated the power and facility of the new algorithm. Although this method indeed proved to be very fruitful as a means of solving numerous problems, its mathematical foundations remained obscure and open to criticism. Huygens for one was not impressed by its success. He preferred to work within the framework of classical geometry.

Nieuwentijt was more intrigued by this more recent branch of mathematics. Possibly already as a student in Leiden and Amsterdam in the 1670s, he became acquainted with the infinitesimal method and certainly before 1690 he was working on a treatise that could serve as a textbook for his adopted son Hendrik Munnik. The book was finally published in 1695 as the *Analysis infinitorum*. Only in 1690 did Nieuwentijt come across Leibniz' *Nova methodus*, to which he reacted in 1694 with a polemical tract *Considerationes circa analyseos ad quantitates infinite parvas applicatae principia et calculi differentialis usum in resolvendis problematibus geometricis*. After a response by Leibniz, Nieuwentijt restated his criticism in the *Considerationes secundae* of 1696, until the detailed reply by Jakob Hermann in 1700 put an end to the debate.<sup>8</sup>

Nieuwentijt's criticism of the calculus has some merits, but on the whole it is quite insufficient to solve the difficulties. He did accept the existence of infinitesimal small quantities, but only to the extent that they could be converted to normal quantities by multiplying them by an infinite number. In the *Analysis infinitorum* he based the calculus on the principle that 'everything that could not be converted to a magnitude after being multiplied by an infinite number, could be considered as non-existent and equal to zero'.<sup>9</sup> An infinitely small

<sup>7</sup> Carl B. Boyer, *The History of the Calculus and its Conceptual Development* (New York, 1959; repr. 1949); Paolo Mancosu, *Philosophy of Mathematics and Mathematical Practice in the Seventeenth Century* (New York-Oxford, 1996).

<sup>8</sup> See B.P. Vermeulen, 'The Metaphysical Presuppositions of Nieuwentijt's Criticism of Leibniz's Higher-Order Differentials', in: A. Heinekamp (ed.) *300 Jahre 'Nova Methodus' von G.W. Leibniz (1684–1984). Studia Leibnitiana*. Special issue 14 (Stuttgart, 1986), 178–184; R.H. Vermij, 'Bernard Nieuwentijt and the Leibnizian Calculus,' in: *Studia Leibnitiana* 21 (1989), 69–86; Mancosu, *Philosophy of Mathematics*, 156–164.

<sup>9</sup> Nieuwentijt deduces this principle from Euclid and Archimedes, but he extends their definitions by making use of an infinite number. The infinitesimal  $dx$  exists because, multiplied by an infinite number  $i$ , it could yield a finite quantity  $a = i \, dx$ , but  $dx^2$  does not exist, since  $i \, dx^2 = a \, dx$ , which is not yet a finite quantity.

number multiplied by itself would then produce a number equal to zero, or alternatively a square with an infinitesimal side would have a surface equal to zero. Obviously, this led him into quite subtle arguments about infinitesimals and infinite numbers, which he could not properly solve. In fact, the foundational problems associated with the calculus would only be solved in the nineteenth century by introducing the concept of function and limit.<sup>10</sup>

What can we learn from Nieuwentijt's attempt to give an axiomatic foundation to the infinitesimal calculus? Bernard Vermeulen has argued that Nieuwentijt's motives were based in religious zeal. Nieuwentijt was trying to prove that a clear understanding of the infinitely small and the infinitely large was outside the reach of the human intellect. Nieuwentijt thought that 'while human reason finds its limits in conceiving the mathematical infinite, it a fortiori cannot grasp the properties of an absolute, actually infinite being [by which he means God, of course].'<sup>11</sup> It was Nieuwentijt's concern to safeguard the distinction between God and man, by confining the territory of human reason to the knowledge of the finite. Michael Petry agrees with this view and puts Nieuwentijt's work squarely in the context of his later anti-Spinozist writings. Nieuwentijt in fact reacted not so much against the defective method of Leibniz' calculus, but against the underlying metaphysics, the 'philosophical pretension of being able to grasp the infinitely large, of being able to rationalize the existence of God.' Pure mathematics could only yield true knowledge by combining it with empirical observations; without them it was only the product of imagination.

Rienk Vermij, on the contrary, strongly opposes this interpretation. Nieuwentijt developed his mathematical ideas long before he heard of Leibniz' foundation of the calculus and so could not object to the particular metaphysics in which it was framed. His concern was with mathematics and it was well justified. He did object to an unwarranted use of the human intellect in imagining infinitely small quantities which it could not clearly see. But he concluded that it was better (and possible) to rely on rational rules, based on the secure logic of the geometrical method. Nieuwentijt therefore did not reject infinitely small quantities, but instead tried to provide a certain foun-

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<sup>10</sup> I. Grattan-Guinness (ed.) *From the Calculus to Set Theory 1630–1910. An Introductory History* (London, 1980).

<sup>11</sup> Vermeulen, 'The Metaphysical Presuppositions'.

dation for them. His mathematical writings do not contain enough elements to argue convincingly for a more profound metaphysical programme.<sup>12</sup>

Whether Nieuwentijt's reaction to the calculus of Leibniz was inspired by deeper metaphysical or religious motives, is not only a matter of biographical interest. Very often, Nieuwentijt is regarded as the primary representative of a more general shift in Dutch scientific life from Cartesianism towards Newtonianism. Around the time he wrote his mathematical treatises, he indeed began to do experimental research, which over the years would lay the groundwork for his *Regt gebruik* and *Gronden van zekerheid*. These works became the vehicles for Newtonian science in Holland, promoting the view that pure mathematics was unable to yield genuine knowledge unless it was based on and complemented by empirical observations. In this context, the polemical attitude of Nieuwentijt towards Leibniz' new mathematics could be taken as a first signal that as early as 1690 he had abandoned the Cartesian conceptions of science and mathematics, at least as it was used in Spinozist and Leibnizian philosophy. This interpretation has been expounded very well by Michael Petry in his thorough analysis of the early reception of the calculus in the Netherlands. Petry detects a divide between the Dutch 'professional' mathematicians and the philosophers, which already was apparent before 1670. The mathematicians who had contributed so much to the elaboration of Cartesian mathematics, had lost 'by 1665 (...) interest in the wider philosophical implications of Descartes' fusing of mathematics and metaphysics.' They increasingly turned from pure towards applied mathematics, and although they shared their views and ideas regarding scientific problems with Spinoza and were interested in his exposition of Cartesianism, they did not follow him in his further developments of a mathematical metaphysics. 'Although (...) there were Dutch Cartesians who continued to defend the physical theories of their master until well into the eighteenth century, there was a general realisation, towards the end of Spinoza's life, that nearly all the detailed expositions in this aspect of Cartesianism were outdated.' Petry quotes the secretary of the Royal Society, Henry Oldenburg, who stated that Spinoza was 'an odd Philosopher, that lives in Holland, but no Hollander.'<sup>13</sup> Spinoza did, of course, have a wide

<sup>12</sup> See his edition of a selection of Nieuwentijt's writings, with notes and introduction: R.H. Vermij, *Bernard Nieuwentijt. Een zekere, zakelijke wijsbegeerte* (Baarn, 1988), 24–28.

<sup>13</sup> M.J. Petry, 'The Early Reception of the Calculus in the Netherlands', in: Heine-

following in Holland, but not, according to Petry, among the more scientifically inclined and knowledgeable. In this view, Nieuwentijt's early reaction to Leibniz' mathematical metaphysics, as it can be found in his polemic on the foundations of the calculus, has to be taken as an important piece of evidence.

In his book on Nieuwentijt, however, Vermij does not agree with such a wide-ranging interpretation of the mathematical controversy.<sup>14</sup> The polemic with Leibniz was no foreboding of his later writings against Spinoza's geometrical way of reasoning. In fact, there may have been more continuity in the views of Dutch philosophers on the Cartesian and Newtonian conceptions of science than is often thought. What was at stake in the writings of Nieuwentijt was a defence of the 'new philosophy' against the suspicions of theologians and others. Although Nieuwentijt indeed attacked the oversimplified epistemology of the Spinozists by stressing that mathematics in itself could not be a source of knowledge, he did not abandon the mathematical approach inherent in the Newtonian worldview. His argument for empiricism did not have to imply a radical break with Cartesian views, such as Petry claimed. At the end of the seventeenth century, experiments formed an integral part of Cartesian science and were not considered to be in contradiction with Descartes' epistemology. There is no need therefore to put Nieuwentijt's critique of Leibniz in the general framework of an empiricist epistemology.

We may get a more complete view of the Dutch intellectual world by looking at Nieuwentijt's contemporaries. How does he fit in with them? It is often said that his scientific writings had no equal among Dutch mathematicians and stand alone both in quality and in subject matter. It is difficult to envisage a community of like-minded philosophers, for whom he may be taken to be spokesman. In his controversy with Leibniz no other mathematicians took his side. During the 1680s he had contacts with a few obscure Amsterdam mathematicians, Jan Makreel, who introduced him to the work of Newton, Pieter van Gent, who brought him into contact with E.W. von Tschirnhaus, and Adriaan Verwer, who did the same for David Gregory.<sup>15</sup> But these snippets of information are not enough to sketch

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kamp (ed.) 300 Jahre 'Nova Methodus', 202–231.

<sup>14</sup> Vermij, *Secularisering en natuurwetenschap*. See also his other papers on Nieuwentijt, mentioned above.

<sup>15</sup> R.H. Vermij, 'De Nederlandse vriendenkring van E.W. von Tschirnhaus', in: *Tijdschrift voor de Geschiedenis van de Geneeskunde, Natuurwetenschappen, Wiskunde en Techniek* 11 (1988), 153–178.

the background of Nieuwentijt's views. More relevant, but equally unsatisfying, is Nieuwentijt's vehement criticism of contemporary atheist philosophers, who proclaimed to demonstrate their tenets with mathematical certainty. We need a more general, but still not attempted appreciation of the role of mathematics in Dutch culture during the early Enlightenment.

## II. *The Appeal of Mathematics*

Although Dutch mathematicians did not figure prominently on the international scene, during the eighteenth century mathematics was in no way an obsolete field of interest in the Republic. It emerged in rather unexpected places, although it had very little to do with the science of Newton, Leibniz or Euler. Philosophers frequently referred to the mathematical method as a means to make certain arguments and to found their views on a secure basis. An example is found in the work of Simon Tyssot de Patot (1655–1727), an English Huguenot who taught geometry, astronomy, geography, navigation and other mathematical disciplines in Deventer from 1690 until 1727.<sup>16</sup> In 1694 he published a *Dissertation in which it is mathematically demonstrated that man can make use of only one of his senses in the most perfect way as nature has permitted him to do*. In his foreword, Patot emphasizes the importance of mathematics for all branches of philosophy. Indeed his whole argument is framed in a mathematical style of reasoning. He argues that sense perceptions are ruled by the pineal gland, which is subject to mechanical forces, originating in the senses. The strongest force would determine the position of the gland and the perception in the mind.

It was not unusual for mathematicians to write books on philosophical themes. Even Christiaan Huygens was not above writing a speculative work on cosmology, in which he imagined the inhabitants of other planets, and deduced by rational arguments their physical and intellectual features.<sup>17</sup> It is not surprising that, on a more popular level, similar books were written by lesser authors. The *Beschrijvinge van het magtig koninkrijk Krinke Kesmes* contains an imaginary travel

<sup>16</sup> A.A.M. de Haan, 'Geschiedenis van het wijsgerig onderwijs te Deventer,' in: H.W. Blom *et al.* (eds.) *Deventer denkers. De geschiedenis van het wijsgerig onderwijs te Deventer* (Hilversum, 1993), 29–122, in particular 90–97.

<sup>17</sup> Christiaan Huygens, *Kosmotheoros, sive De Terris Coelestibus, earumque ornatu, conjecturae* (The Hague, 1698).

account written in 1708 by the Zwolle surgeon Hendrik Smeeks, who illustrated his philosophical arguments with diagrams of equilateral triangles. It has no scientific value at all: Smeeks ‘possessed only half wisdom, which is worse than no wisdom at all’, C. Louise Thijssen-Schouten observed.<sup>18</sup> Slightly better fared the book of one Caspar Langenhert, who in 1688 published a mathematical demonstration of the Cartesian tenet that animals were nothing more than automata.<sup>19</sup> Mathematics was for him a road to eternal salvation and true wisdom, on equal foot with such unexpected companions as theology and medicine. Similar views can be found in a multitude of authors, self-styled and self-conscious philosophers but hardly able mathematicians.<sup>20</sup>

The use of mathematics was not confined to philosophy. In 1701 the painter Gerard de Lairese (1640–1711) published a manual *Grondlegginge der Teekenkonst; zynde een korte en zekere weg om door middel van de geometrie of meetkunde teekenkonst volkomen te leeren* (‘Foundation of the art of drawing; being a short and certain way to learn to draw by way of geometry’). The book appears to have been quite popular. It was reprinted several times during the eighteenth century and translated into other languages. Manuals for artists were not unusual, but De Lairese’s book was special in its insistence on the geometrical method. The author stated that his ‘only intention is to give to the pupil a clear understanding of all the things that we will speak about, so that he will not grope his way as if he were in the dark, or playing a blind man, not being able to look into the bright sunlight of reason.’<sup>21</sup>

Geometry, De Lairese held, was for the artist like the alphabet for the reader. It was ‘the first principle that will guide us to the art of drawing, and without which it would be completely impossible to reach this art, or for that matter any other art or science.’ De Lairese not only taught his readers the fundamentals of geometrical figures and practical constructions, but he also made an attempt to prove

<sup>18</sup> C. Louise Thijssen-Schoute, *Nederlands cartesianisme* (Amsterdam, 1954), 622–635.

<sup>19</sup> Caspar Langenhert, *Brutum Cartesianum, sive rationes, quibus sensu Bruta carere demonstrare nititur Renatus Cartesius, Methodo Geometrica* (Franeker, 1688).

<sup>20</sup> There is as yet no systematic overview of Dutch mathematical-philosophical publications, of which there were many. Examples can be found in any book on the history of Dutch mathematics. The theme is also present in books on Spinozism. See for instance Wim Klever, *Mannen rond Spinoza. Presentatie van een emanciperende generatie, 1650–1700* (Hilversum, 1997), *passim*.

<sup>21</sup> Danny Beckers, ‘Meetkunde als de korte en zekere weg naar kunst. Gérard de Lairese en zijn *Grondlegginge der Teekenkunst*’, in: *Gewina* 21 (1998), 81–93.



*more geometrico* a number of 'infallible' rules, which the painter had to follow in order to make a beautiful composition.

Most of these works had, as one can easily imagine, little to do with mathematics as a scientific endeavour, but their arguments appear to have been well received by their intended audiences. Dutch readers, it may be inferred, were quite receptive to the mathematical arguments of philosophers, preachers or artists. On the other hand, mathematics was no longer a driving force in Dutch culture. Teachers of mathematics found only few students and the repeated pleas for a better mathematical education had little effect. When Johann Bernoulli (1667–1748) in 1695 opened his mathematics course at the university of Groningen, he could very well state that 'an academy without mathematics would be the same as an earth without the sun, a body without any soul',<sup>22</sup> but at the same time Huygens remarked 'that many people have not had this opportunity [to study mathematics], either because they did not possess the intelligence for such studies, or the means, or because they were too much occupied with their own business or political issues and did not have the leisure. We do not want to blame them for this.'<sup>23</sup> Bernard Nieuwentijt also pointed to the lack of knowledge in mathematics, which to him was the reason why Spinoza could easily mislead people to think that everything in his works was firmly and mathematically demonstrated: 'There are so many among you who have studied neither philosophy nor mathematics, and are satisfied to reply to all objections saying that Spinoza has mathematically proven all his theorems.'<sup>24</sup>

Many historians have indeed pointed out that the public appeal of mathematics as a scientific discipline started to wane from the end of the seventeenth century. As the attention of the public drifted towards natural science and literature, mathematics seemed to become more and more a sterile and dry subject. In 1734, the Leiden professor of mathematics Willem la Bordus conceded as much in his *Discourse on the use of mathematics in respect to our country*. 'Mathematics', he said, 'makes its practitioners unfit to capture and move the heart

<sup>22</sup> Johannes Bernoulli, *Oratio Inauguralis in Laudem Matheseos* (Groningen, 1695), quoted in Gerard Sierksma and Wybe Sierksma, 'Johann Bernoulli (1667–1748). De grote sprong naar het oneindig kleine', in: H.A. Krop et al. (eds.) *Zeer kundige professoren. Beoefening van de filosofie in Groningen van 1614 tot 1996* (Hilversum, 1997), 119–133.

<sup>23</sup> Huygens, *Kosmotheoros*. I have used the Dutch translation, produced by Peter Rabus, entitled *Wereldbeschouwer* (The Hague, 1754), 7.

<sup>24</sup> Nieuwentijt, *Gronden van Zekerheid*, quoted in Vermij, *Bernard Nieuwentijt*, 99.

of their audiences with beautiful language and style.<sup>25</sup> And somewhat later in the century the Utrecht professor Johan Frederik Hennert pictured mathematics as the only antidote against the perverse and corrupting influence of the fashionable French philosophers. Mathematics itself was the very art of Eloquence, the true foundation of every education. 'It brings the intellect nearer to its divine beginning, because it guards it against the senses and the illusions of the imagination.' But, he further observed, 'in what century do we live? There are people who promote the fall of science, of religion, yes even of our home country.' Only mathematics would bring solace. Alas, 'why do so many youngsters stare with their mouths wide open, at those people who make an attempt to educate them? (...) In particular those scholars who themselves are most advanced in the art of reason often receive the least attention.'<sup>26</sup>

### III. *Experimental Physics as Mathematics*

Although mathematics, as it came to be identified with the new calculus of Leibniz and Newton, became an obsolete field of study in Holland, both in the perception of contemporary observers and of modern historians, the popular appeal of mathematics as a style of argumentation remained untainted throughout the first decades of the eighteenth century. It was often used in philosophical writings, in particular by Spinozist or crypto-Spinozist authors, and served to identify a rational approach to knowledge, which seemed to guarantee absolute certainty.

Michael Petry has argued that both branches of Dutch mathematical culture had nothing to do with each other. As early as the final decades of the seventeenth century, he finds that:

the great majority of the mathematical scientists, theologians and philosophers (...) wanted (...) a guideline concerning the new experimentalism then getting under way in England, a more realistic appraisal of the body-mind problem, a return to more traditional ethical norms, an approach to mathematics which did not confuse it with theology or weigh it down with philosophical ballast, a conception of God which

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<sup>25</sup> Willem la Bordus, *Redenvoering over het nut der wiskunde met betrekking tot ons vaderlandt: en de noodzaakelykheit, om dezelve in de Nederlandtsche Taaler te onderuryzen* (Leiden, 1734).

<sup>26</sup> Johan Frederik Hennert, *Inwydingsrede betoogend de noodzakelykheid om de beoefening der Wiskunste met een goede opvoedinge gepaart te doen gaan* (Rotterdam, 1766).

allowed due significance to revelation and the Bible, drew a clear distinction between Creator and created, and did not confound the infinite and the finite.<sup>27</sup>

Petry indeed confronts this attitude with the more popular use of mathematical reasoning as exemplified by such authors as the autodidact Willem Deurhoff, the clergyman Frederik van Leenhof or the mystic Jacob Brill who all in the wake of Spinoza tried to present their own work as being mathematically demonstrated. It was against this misuse of mathematics that more enlightened thinkers would react by turning away from mathematics and towards the new experimental philosophy.

Both branches of mathematics may, however, be more closely related by looking at mathematics from a wider angle. The culture of mathematics was much more diverse than is suggested by the poor professional response to the new calculus. At the beginning of the eighteenth century a fairly high number of mathematics teachers were active in the Republic. Huib Zuidervaat has been able to identify at least twenty people as being 'teachers of mathematics' in Amsterdam during the first four decades of the eighteenth century. The scientific content of these courses may not have been very advanced. Most of them were teaching merely practical skills such as arithmetic, surveying, bookkeeping or navigation. Some of these teachers did venture into deeper intellectual waters, undoubtedly in order to advertise their own abilities, such as one Joannes van der Boot who in 1742 wrote *Wisconstig bewys van 't begin der schepping* ('Mathematical demonstration of the origin of the world').<sup>28</sup> But on the whole these mathematical instructors offered practical training, even covering themes that would now be considered to be part of physics. In particular experimental physics, as it became popular at the turn of the century, was originally regarded as a branch of mathematics rather than natural philosophy.<sup>29</sup>

The close link between mathematics and experimental physics is already apparent in the work of the Leiden professor of philosophy

<sup>27</sup> Petry, 'The Reception of the Calculus in the Netherlands', 222.

<sup>28</sup> Huib Zuidervaat, *Van 'Konstgenoten' en Hemelse Fenomenen. Nederlandse sterrenkunde in de achttiende eeuw* (Rotterdam, 1999), 60–63.

<sup>29</sup> One example of this wide interpretation of mathematics is given by the announcement of the mathematical courses of Johannes Bernoulli at Groningen University: 'Physics is taught *ad rigorem Geometricum*, and everything confirmed by experiments. Further he will lecture algebra, optics, statics, mechanics and *all other branches of mathematics*.' Quoted in J. van Maanen, 'Acht Groningse studiegidsen wiskunde (1696–1704)', in: *Gewina* 22 (1999), 85–90.

Burchard de Volder, who in his 1682 address *De conjugendis philosophicis et mathematicis disciplinis* ('On the bringing together of philosophy and mathematics') had emphasized that without mathematics there could not be any sound (natural) philosophy: 'If we follow the road shown to us by mathematics, there will be no more room for error or sophism.' In a later discourse he further elaborated his views in advocating mathematics as a universal foundation of all learning. Reason had taken the place of mathematics as the true foundation of knowledge, but it was not all-powerful. Whereas man could only understand the outside world through his thinking, by the same token his thoughts constituted the limits of what he could possibly think of. This may have put a severe restriction on the possibilities of obtaining rational knowledge, but De Volder then turned to mathematics to find his way out. Since mathematics had proven to be the best and necessary foundation for natural science, he expected that in the same track man could extend his understanding of nature with the help of sound mathematical reasoning.<sup>30</sup>

Although the increasing appeal of experimental physics to Dutch audiences during the first decades of the eighteenth century signals a new approach to science, replacing the earlier emphasis on certainty and axiomatic structure, it was not to the detriment of mathematics as a still highly regarded intellectual resource. If intellectuals had been looking for a different and more empirical approach to nature, they would not have turned towards experimental physics but towards natural history. Popular enthusiasm for natural history would continue unabated in the following century. It was the microscopical investigations of Swammerdam, Hartsoeker and Leeuwenhoek, that unfolded the book of nature, without recourse to mathematical axiomatics. In comparison with the great promise and achievements of these investigators, experimental physics was not fundamentally different from mathematics.

On the contrary, the culture of mathematics proved to be the ideal fertile ground for the new spectacle of experimental physics, underscoring the continuity between both. At least from around 1720, demonstrations of experiments attracted an increasingly large number of people, men and women, who flocked to the public lectures of such renowned foreign scholars as Daniel Gabriel Fahrenheit or Jean Theophile Desaguliers. When in 1737 it was observed that '[everyone], yes, would you believe it, even simple folks, who are nor-

<sup>30</sup> W. Klever, 'Burchard de Volder (1643–1709), a Crypto-Spinozist on a Leiden Cathedra', in: *Lias* 15 (1988), 191–241.

mally regarded as examples of foolishness, are studying mathematics and turning into natural philosophers,'<sup>31</sup> in reality not mathematics but experimental physics was meant. In the second half of the eighteenth century, learned societies were founded, concentrating on mathematical discussions and physical experiments. The widespread 'philomathy' as some historians have labelled this peculiar branch of amateur science, did not contribute much to the progress of mathematics, nor for that matter to the advance of philosophy, but it continued to satisfy the desire for true and certain knowledge, which only mathematics could bring.

The apparent decline of mathematics coincided with an increasing enthusiasm for experimental physics. Although from an epistemological point of view experimental physics may be considered an exponent of empiricism, it was also a form of mathematics. Both with respect to quantification and mechanical technology, and with respect to the structure of knowledge, experimental physics was firmly framed within what was considered to be the realm of mathematics. The rise of experimental physics and Newtonianism was then no abrupt break away from the previous era of Cartesian mathematics as it has been interpreted by Sassen and Petry. On the contrary, the experimental demonstrations of Desaguliers and 's Gravesande were deeply influenced by the same geometrical method that had previously inspired Spinoza and his followers.

The advent of experimental physics was not a replacement of an earlier enchantment with mathematics, but rather a further stage of it. This is clearly illustrated by the introduction of experiments by the Leiden professor Willem Jacob 's Gravesande in his course on Newtonian natural philosophy. At first, he set out to explain the whole of Newtonian philosophy in terms of a strict mathematical framework, until he realized that the general level of mathematical education among his countrymen was too elementary to grasp the subtle mathematical arguments. He then turned to experimental demonstrations as a solution to this problem, and he gradually made the mathematical proofs disappear in the successive editions of his *Physices elementa mathematica, experimentis confirmata* ('Mathematical principles of physics, confirmed by experiments'). 's Gravesande continued to believe in mathematical certitude as the basis of all scientific knowledge. He opposed the a priori certainty of Descartes and Spinoza, but still believed that the certainty of sensorial perceptions

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<sup>31</sup> Quoted in Zuidervart, *Van 'Konstgenoten'*, 70.

was warranted by a benevolent God. God has provided man with the means to understand the world around him. The physicist was thus rationally justified to look upon his observations as true evidence of the real world. With a few reservations about false impressions or illusory observations, 's Gravesande concluded that mathematical certainty was possible in natural philosophy.<sup>32</sup>

It is clear that with 's Gravesande mathematics and its philosophical implications for obtaining true knowledge had not disappeared from Dutch philosophy. It embodied a radical style of thought, to which generations of Dutch philosophers were attracted. The heritage of the Spinozists and their adversaries, who both reflected on the use of mathematics in philosophy, remained an important element of Dutch culture. Not until the second half of the eighteenth century, when experiments became dissociated from their underlying mathematical structure, did mathematics disappear from philosophical debates. The growing success of natural history and of learned societies discouraged the strict reasoning which was the hallmark of Newtonian experimental philosophy. By then, the level of mathematical learning had irrevocably deteriorated, and mathematics indeed became an obsolete and unpopular subject, only fit for those wanting to pursue a practical, not a philosophical education. Mathematics as a distinguishing element of philosophical and scientific inquiry would only re-emerge in Holland in the second half of the nineteenth century, in the work of Van der Waals, Lorentz and Van 't Hoff.

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<sup>32</sup> C. de Pater, *Willem 's Gravesande. Welzijn, wijsbegeerte en wetenschap* (Baarn, 1988), 40–41. 's Gravesande's philosophy influenced many other Dutch philosophers. Some of them, such as the Harderwijk professor Johan Hendrik van Lom (1704–1763), leaned towards an even more rationalist position, emphasizing the independent role of mathematics as the foundation of knowledge not only for the natural sciences, but also for the whole of philosophy. He is credited with a mathematical proof of the existence of God. Nevertheless, he was also much interested in experimental physics and possessed an impressive collection of physical instruments, which is a further indication of the close links between mathematics and experimental physics. See M.J. van de Hoven and H.A. Krop, 'Nicolaas en Diderik Heineken: proefondervindelijke wijsbegeerte en natuurlijke theologie in de Verlichting,' in: Blom *et al.* (eds.) *Deventer denkers*, 149–166, in particular 151–152.



PART 4

*Enlightenments Past and Present*





## THE EARLY DUTCH ENLIGHTENMENT AS A FACTOR IN THE WIDER EUROPEAN ENLIGHTENMENT

JONATHAN ISRAEL

Although it is true that the creative drive behind the philosophical and scientific ferment which commenced in the Netherlands in the mid seventeenth century, and continued for some sixty to seventy years, had largely spent itself by around 1720, there remains an important sense in which major aspects of the early Dutch Enlightenment remained pivotal to the wider European Enlightenment subsequently for many decades, even perhaps down to the beginning of the nineteenth century. This, I would contend, was because several of what later became fundamental issues in the wider arena of European Enlightenment had already been raised in the Dutch context, and been vigorously fought over, in ways which prefigure much of the later debate in France, Germany, Italy, and also to an extent Britain.<sup>1</sup>

Admittedly, there is scarcely any mention of such a thing as a crucial early Dutch dimension in the existing historiography. But the fact that so many historians have passed over the Dutch context in complete or virtual silence is not, of course, in any way a proof of its marginality. For, no matter how many scholars have omitted it from the picture, there are irrefutable grounds for insisting that the late seventeenth and early eighteenth-century Dutch intellectual milieu including Bayle and the Huguenot intelligentsia which settled in Holland after the Revocation of Nantes, is in fact indispensable to any proper grasp of the subject, and no less formative for the European High Enlightenment as a whole than the English empirical tradition from Locke to Hume, or the French philosophical writers of the generation of Montesquieu and the early Voltaire, despite both being incomparably better known, and appreciated, as architects of the Enlightenment.

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<sup>1</sup> I have in mind here the tendency of some eighteenth-century continental historians of philosophy to view Collins, Toland, Tindal and Mandeville as essentially derivative authors who borrowed much of their thinking from Spinoza, Bayle, Van Dale, Bekker and other writers of the early Dutch Enlightenment, see Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001), 599–627.

An abundance of examples from very varied European contexts powerfully demonstrate the wide reach and centrality of the Dutch debates right through the eighteenth century. One of the most obvious is the German *Pantheismusstreit*. In 1785 the German publicist Friedrich Heinrich Jacobi published his *Ueber die Lehre des Spinoza in Briefen an den Herrn Moses Mendelssohn*, precipitating a furore which developed into one of the most formative and fundamental episodes of the entire German Enlightenment. Jacobi, as Nicholas Boyle aptly noted,

wanted to show that the Leibnizian compromise, and indeed any philosophical position that attempted a compromise between Christianity and rationalism, was philosophically inherently unstable and must necessarily eventually collapse into Spinozism, the only pure rational philosophy. Religion, Jacobi thought, had to be based not on the intellect but on faith, and since the entire intellectual system of Enlightenment, even where it claimed to be a friend of religion, had no place for faith, it was all, even if unwittingly, crypto-Spinozism.<sup>2</sup>

According to Jacobi, Lessing knew this and had not refrained at the end of his life from avowing himself to be a ‘Spinozist’, considering this the only viable route by which he could meaningfully and consistently uphold a rationalist deism based on belief in the equality of all men and the desirability of a universal toleration.

In the course of this procedure Jacobi invoked not only the influence of Spinoza and crypto-Spinozism, but in reaction to Johannes Semler (1725–1791)—one of the founders of the new German Bible criticism—and other neologists, highlighted the clash between Bayle and the early Enlightenment Christian rationalists such as Le Clerc, Van Limborch and Locke (whose own contribution in this sphere was heavily dependent on the Dutch context) over whether faith can be buttressed by reason, deploring the kind of Bible criticism which views rational philosophy as the sole or prime criterion by which to judge Scripture. In the process, he drew attention once more to Lodewijk Meyer (1629–1681) whose *Philosophia S. Scripturae Interpres* (1666) had been republished by Semler in a new critical edition, at Halle, in 1776, nine years before. Jacobi, as part of his wider campaign against Spinozism, pantheism, and materialism, also revived

<sup>2</sup> Nicholas Boyle, *Goethe. The Poet and the Age*, vol. 1 (Oxford, 1991), 383; like the Prussian anti-Wolffians of the 1720s and 1730s, Jacobi believed that Leibniz’ (and Wolff’s) determinism was not really much different from Spinoza’s fatalism, see Alexander Altmann, *Moses Mendelssohn. A Biographical Study* (London, 1973), 620; Israel, *Radical Enlightenment*, 541–562.

the issue, widely discussed in Germany in the opening decade of the eighteenth century, of Johann Georg Wachter's controversy with Johann Peter Spaeth (alias Moses Germanus, 1644–1701) a German Christian convert to Judaism who polemicized against Christianity in Amsterdam. During his stay in Holland—the formative experience of his early development as a scholar—Wachter became deeply preoccupied with Spaeth's apostasy, accusing him of being a Spinozist and a Cabbalist, and claiming, furthermore, that there was a Spinozistic tendency underlying the Jewish Cabbala in general.

### I. *Pluquet and Piquer*

Above all, and to this we shall return at the end of this paper, Jacobi helped usher in what is sometimes termed the 'cognitive crisis' of the German High Enlightenment calling in question not just Lessing and his heirs but all attempts at philosophical enlightenment. However, his perception of a direct continuity connecting what could be seen as the most threatening strands of mid and late eighteenth-century European philosophical deism with Spinoza, Spinozism and other related radical tendencies in late seventeenth-century Holland was in itself nothing new, indeed part of a general phenomenon characteristic of the European High Enlightenment everywhere. Thus, in mid eighteenth-century France, the Abbé François Pluquet (1716–1790) in his *Examen du fatalisme* (1757) performed the remarkable feat, doubtless for reasons of discretion, of writing a major and wide-ranging three-volume critique of contemporary French philosophical deism without mentioning any contemporary French *philosophes* at all. But he found no difficulty in doing so, being convinced as he was that all the key issues, arguments and analyses, everything that was seriously challenging or seditious in Voltaire, Diderot, La Mettrie, Helvétius and Rousseau had already been sufficiently worked out philosophically, and widely publicized, in the late seventeenth and early eighteenth century by Spinoza and his acolytes and to an extent also by Bayle. In his eyes, the *philosophes* did little more than amplify and popularize those earlier debates.

Pluquet's critique of eighteenth-century *fatalisme* concentrates first and foremost, as is apparent at a glance, on Spinoza. His philosophy he deems the most irreligious and seditious trend in contemporary thought and one firmly rooted in the late seventeenth century. To show that he is attacking a general current of ideas and not just a particular philosopher, he is careful, unlike most eighteenth-century

British and French philosophical commentators, to draw attention to the important role of Spinoza's associates, disciples and adherents, most notably Franciscus van den Enden (1602–1674), Abraham Cuffeler (c. 1637–1694), Johannes Bredenburg (1643–1691) and Frederik van Leenhof (1647–1713). He also comes close to linking Bayle with this Spinozist tendency, charging him in particular with confusing the public, and weakening Man's defences against philosophical deism, materialism and atheism by undertaking to refute Spinoza and then (for anyone who thinks clearly) failing to do so convincingly, implying that he might have done this deliberately, his refutation being nothing but an elaborate charade to mislead the public. 'Ce destructeur indefatigable de toute doctrine systematique' when discussing Spinoza and Spinozism had unaccountably 'porté ses coups en l'air'.<sup>3</sup> Admittedly, Pluquet implicates Bayle in the fomenting of *fatalisme* and Naturalism only tentatively, employing the most delicate irony and circumspection, while other defenders of a moderate Catholic Enlightenment in eighteenth-century France, such as the Abbé Houtteville preferred—albeit not without some hesitation—to exonerate him completely of any other offense than ill-advisedly asserting many things that could easily be abused or turned to despicable uses by the growing host of *esprits forts*. Even so, there was no lack of others, including—contrary to what Mme. Labrousse has argued—many contemporaries of Bayle, among them Jaquelot and Saurin—who were altogether blunter than Pluquet in claiming that no-one had done more to undermine rational theology, and detach reason from faith and by doing so opening the door to non-providential deism and Spinozism, than Bayle with his fideism sincere or feigned.<sup>4</sup>

A leading figure of the Spanish Enlightenment of the mid eighteenth-century, the Valencian philosophical and medical writer Andrés Piquer (1711–1772) published a treatise at Madrid, in 1757, on how to propagate awareness of modern philosophy among the Spanish younger generation without endangering faith, piety, and morality. He well knew the delicate, controversial and risky nature of urging young Spaniards to interest themselves in philosophy but deemed this not just advisable but ultimately unavoidable. For it was scarcely feasible to segregate Spain from philosophical currents agi-

<sup>3</sup> [François Pluquet] *Examen du fatalisme*, 3 vols. (Paris, 1757), II, 95; Israel, *Radical Enlightenment*, 339.

<sup>4</sup> Israel, *Radical Enlightenment*, 338–341; Gianluca Mori, *Bayle philosophe* (Paris, 1999), 186–187n., 130, 236–237.

tating the rest of Europe, while it also seemed essential that the great advances achieved by Enlightenment science and philosophy should be shown to be entirely consonant with Revelation. Hence his insistence 'que las verdades que los hombres alcanzan por la philosophia hayan de tener conexion y atadura con las que Dios ha revelado'. Moreover, in his opinion it was unrealistic, inadequate and in the end probably impossible to expect philosophically aware, inquiring minds in an intellectually fast-changing Spain unquestioningly and uncritically to defer to ecclesiastical authority. The educated man, the reader of philosophical works, expects to comprehend what is true, and appreciate the force of truth, for himself. It was insufficient in the new Spain, he argued, simply to know *a priori* that truth resides in Holy Scripture and the doctrines of the Church. 'Es menester tambien', as he puts it, 'que conste a los fieles qual sea la légitima inteligencia de las Escrituras Sagradas'. In other words faith alone does not, and can not, buttress existing structures of belief and authority. Furthermore, even if faith could be protected by a general ban on modern philosophy and philosophizing, such a drastic solution to the thorny problem of how to accommodate philosophy would mean sacrificing all the many benefits of science and medicine and therefore causing 'grandissimo perjuicio a la sociedad humana, a quien importa mucho que las ciencias naturales se cultiven y se perfeccionen'.<sup>5</sup> However great accordingly was Spain's loyalty to faith and Church, Spaniards neither could nor should try to avoid the embrace of the Enlightenment.

But if one must teach the modern discoveries made 'por via de la experiencia', insights which had fomented in some the most reprehensible philosophical tendencies and which 'se hacen servir a veces para renovar y apoyar errores torpissimos, como se ve en los Materialistas y otros sectarios de nuestros dias', how is one in practice to protect young people from such corrupt and pernicious doctrines as those of the materialists, Epicureans and Spinozists? His answer is indeed a remarkable one. Much the best philosophical strategy, he urges, and that which should be taught to young people systematically is the method of *philosophía ecléctica*. Young men need to be taught how to sift the philosophical systems of modern times, as well as of the past, without being won over by any of them, learning to take from each whatever is useful, compatible with Catholicism and

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<sup>5</sup> Andrés Piquer, *Discurso sobre la Applicación de la Philosophia a los Asuntos de religion para la Juventud Española* (Madrid, 1757), 9.

intellectually convincing while discarding *in toto* what is demonstrably false and at odds with the Church's teaching, and leaving aside whatever is doubtful or might conflict with Catholic doctrine.

Piquer, like Houtteville, Pluquet, and other mid eighteenth-century philosophical commentators, makes little reference to current French or English philosophers. Indeed, he specifies no names at all when asserting that the most vital thing young Spaniards need to learn is how to counter the impious doctrines of those who prefer 'las maximas que entienden por la philosophia' ('the maxims which they understand through philosophy') to 'las verdaderas reveladas, si estas les parece que se oponen a aquella' ('the revealed true ones if these seem to them to be opposed to the former'); but this could only refer, given the context, to maxims propagated by adherents of the kind of philosophical Bible criticism which had evolved in the Netherlands—that is not just Spinoza but also the several other seriously contentious figures.<sup>6</sup> Elsewhere, he states more precisely that young Spaniards need to be protected against Le Clerc, Bayle—the only other philosopher besides Spinoza who, according to Piquer, denies divine Providence<sup>7</sup>—, some parts of Cartesianism, Wolff's philosophy or at any rate what the German anti-Wolffians considered to be Wolff's crypto-Spinozist tendencies, and finally the 'impiedad de los Materialistas, teniendo a la Naturaleza por la misma Divinidad', a clear hint that Piquer considered materialism to be essentially an outgrowth from Spinozism.<sup>8</sup>

Piquer not only studiously ignores contemporary French writers, he makes it doubly clear that in his view the chief source of the materialistic and atheistic spiritual gangraene against which Spain must gird herself does not lie in the writings of contemporary French *philosophes*—for example with his remark about Seneca of whom, he says, 'se duda, si fue o no Materialista; es decir, si tuvo a la Naturaleza corporea por la Divinidad misma, como en nuestros tiempos lo ha hecho el impio, y blasfemo Espinoza' ('it is uncertain whether or not he was a materialist; that is to say whether he took corporeal nature to be the Divinity itself, as in our times the impious and blasphemous Spinoza has done').<sup>9</sup>

<sup>6</sup> *Ibid.*, 86.

<sup>7</sup> Andrés Piquer, *Logica moderna o arte de hallar la verdad y perfeccionar la razon* (Valencia, 1747), 24.

<sup>8</sup> Piquer, *Discurso*, 90–91, 97–98.

<sup>9</sup> *Ibid.*, 97.

## II. *Bible Criticism*

The centrality of the United Provinces in the genesis of the European Enlightenment is perhaps most vividly demonstrated by the far-reaching and enduring impact of the new Bible criticism. It is true that most modern Enlightenment scholars associate the revolution in Bible criticism of the late seventeenth century above all with the great French Catholic scholar Richard Simon—and not without some justification given the new philological and linguistic apparatus he introduced. Yet the overriding issues for most critics reacting against the new philosophical Bible hermeneutics in the eighteenth century were not those raised by Simon but those raised by Spinoza in his *Tractatus theologico-politicus*, by Lodewijk Meyer's principle that 'philosophy is the interpreter of Scripture', and the Spinozist denial, on philosophical grounds, of the possibility of miracles, including those recounted in Scripture, as filtered through the widely influential hermeneutics of Le Clerc who, in contrast to Simon, denied many or most Biblical miracles where these were not directly connected with Christ. As for Simon, though judged disturbingly corrosive and thought to have borrowed extensively from Spinoza without admitting it,<sup>10</sup> eighteenth-century Lutheran, Calvinist, and Catholic Bible critics mostly considered him less dangerous than Spinoza, Meyer, or Le Clerc.

In the public disputation staged at Rostock in May 1702, an event planned by the local university and Lutheran authorities for the express purpose of publicly crushing the critico-philosophical assault on Scripture, four issues were highlighted as having central relevance in the contemporary war between traditional Lutheran hermeneutics and the new Bible criticism. These four chief points, interestingly, all reflect the central role of Dutch debates in generating what was perceived as the major intellectual crisis of the age. They were, firstly, the question of whether Moses was really the author of the Five Books, his authorship being vigorously defended in Rostock against Spinoza, Hobbes and Isaac La Peyrère (1596–1676). Secondly, there was the question whether, in accounts of natural phenomena, Scripture endorses the 'ignorant notions of the common people', as Christopher Wittichius (1625–1687) and Spinoza maintain; this too was roundly rejected. Thirdly, and again rebutted, it was considered whether philosophy is the 'interpreter of Scripture' as

<sup>10</sup> See for instance Johannes Benedikt Carpzov, *Historica Critica Veteris Testamenti auctore Richardo Simoni oratione inaugurali discussa* (Leipzig, 1684), 12, 31.



the *Philosophia S. Scripturae Interpres* of Lodewijk Meyer and the Bible hermeneutics of Louis Wolzogen (1633–1690) maintain. Finally, it was asked whether the Biblical text should be believed literally, the main threat here deemed to come from the exegetical methods of Johannes Cocceius (1603–1669) and again Meyer's *Philosophia*.<sup>11</sup>

Nor was the late seventeenth-century Dutch context less central to the furious intellectual controversy of the years 1735–1737 concerning the Wertheim Bible, an episode widely discussed in Catholic as well as Protestant Germany, and also Scandinavia. This furore was deliberately stoked up by the Halle professor Joachim Lange (1670–1744) and other Pietist opponents of Wolff, who seeing a unique opportunity to take the offensive against the rising tide of Leibnitzio-Wolffianism in the German universities, declared the Naturalist deistic attitudes, and denial of miracles, pervading the anonymous commentaries on the Wertheim Pentateuch translation—in fact the work of the Wolffian deist Johann Lorenz Schmidt (1702–1749)—to be in essence not just Wolffian but also crypto-Spinozist.<sup>12</sup> Admittedly, Lange was almost alone in his obsession with linking crypto-Spinozism and Wolffianism at every turn and most polemical attacks on the Naturalism of the Wertheim Bible of the mid and late 1730s stick closely to the hermeneutical issues in question, making little mention of Wolff or Spinoza. But leading exegetical scholars such as Ernst Friedrich Neubauer (1705–1748) whose annotations to Johann Jakob Rambach's (1693–1735) commentary on the Old Testament were published in 1736,<sup>13</sup> viewed the Wertheim Bible as the fruit of freethinking and impiety flowing chiefly from a late seventeenth-century intellectual world which emanated in particular from the Netherlands. Neubauer, for example, especially deplores the consistent tendency to reject the miraculous which, in his opinion, had its origin in the hermeneutics of Grotius and Le Clerc.

<sup>11</sup> *Nova Literaria Maris Balthici et Septentrionis* (Luebeck-Rostock, 1702), 155–158; Israel, *Radical Enlightenment*, 216–217.

<sup>12</sup> Israel, *Radical Enlightenment*, 552–555; see also [Johann Niklaus Sinnhold] *Historische Nachricht von der bekannten und verruffenen sogenannten Wertheimischen Bibel* (Erfurt, 1737), 8–11.

<sup>13</sup> See Johann Jakob Rambach, *Collegium historiae ecclesiasticae Veteris Testamenti*, ed. Friedrich Neubauer (Frankfurt-Leipzig, s.a. [1736]).

III. *Oracles*

An extremely interesting early Enlightenment controversy and one which penetrated almost everywhere by the 1720s, even Spain and Portugal, was the War of the Oracles. This began with the publication at Amsterdam, in 1683, of Van Dale's *De Oraculis veterum ethnicorum*. It is true that it was Fontenelle's *Histoire des Oracles* of 1686 which turned this debate into a major international controversy; but as Fontenelle stresses in his preface he was merely reworking Van Dale's thesis and material, not introducing any new ideas.<sup>14</sup> Furthermore, as Anthonie van Dale (1638–1708) rightly observes in his reaction to Fontenelle,<sup>15</sup> the latter in the process subtly altered his thesis in several not insignificant respects. For where Van Dale contends that none of the ancient oracles ever prognosticated, cured or worked any effects supernaturally, the unshakable faith of the Greek and Roman populace in their oracles resulting from sheer superstitious credulity fostered by cunning oracle priests, Fontenelle maintained that the oracles generally wrought no supernatural effects and were usually the result of priestly fraud, while nevertheless acknowledging that demonic power, and magic, do exist and that the Devil could have operated the oracles supernaturally, had the Almighty permitted this.

This protracted controversy which continued, with significant interventions in half a dozen countries, for well over half a century was a classic instance of an Enlightenment three-way contest between a reactionary counter-Enlightenment in one corner, moderation or the mainstream Enlightenment in the second, and in the last the 'Radical Enlightenment'. The first tendency found expression in the views of the German Lutheran theologian Georg Moebius (1616–1697) and, later, the Strasbourg Jesuit, François Baltus, author of the *Réponse à l'histoire des Oracles de M. de Fontenelle* (1707). The latter argued that the ancient oracles, being tools of the Devil, did truly work supernatural effects precisely as the Church Fathers contend. The

<sup>14</sup> Bernard Le Bovier de Fontenelle, *Histoire des Oracles* (1686; new edn. Paris 1698) preface; Benito Jerónimo Feijóo y Montenegro, *Ilustración apologetica al primero y segundo tomo del Teatro Crítico* (6<sup>th</sup> edn. Madrid, 1751), 129; Johann Burkhard Mencke, *Compendiöses Gelehrten-Lexicon*, 2 vols. (Leipzig, 1715), I, 569.

<sup>15</sup> Anthonie van Dale, 'Na-reden' to *Verhandeling van de oude orakelen der heydenen* (1687; new edn. Amsterdam, 1718); Frank Manuel, *The Eighteenth Century Confronts the Gods* (Cambridge, Mass., 1959), 48–49; Hans Bots, 'Fontenelle et la Hollande', in: Alain Niderst (ed.) *Fontenelle* (Paris, 1989), 545–556, 550–551; Meindert Evers, 'Die "Orakel" von Antonius van Dale (1638–1708): eine Streitschrift', in: *Lias* 8 (1981), 225–267, 247–248.

middle camp followed Fontenelle, and later writers such as Fray Benito Jerónimo Feijóo y Montenegro, chief spokesman of the Spanish Enlightenment, and the Italian *érudit*, Scipione Maffei (1675–1755), in claiming that most of the religious culture surrounding the ancient oracles was indeed nothing but superstition and crude credulity but who, nevertheless, took scrupulous care to reaffirm the existence of magic, demons, and supernatural cures in principle and not to deny that some of the oracle prognostications did or might have operated supernaturally; and finally the radical stance originating in Van Dale, and upheld among others by Fontenelle's atheistic disciple César du Marsais holding that the procedures and prognostications of the oracles were always fraudulent and rooted in abuse of popular credulity and that there is no magic or demonic power.<sup>16</sup> In defending Baltus against the views of Van Dale and Fontenelle, at least one participant, a Portuguese, pointed to the chronicles of the Spanish conquest of Mexico which contained, in his view, unquestionable proof that the idols and shrines of the Aztec and Maya had been worked by demons and the Devil.<sup>17</sup>

A notable voice among mid eighteenth-century adherents of the moderate mainstream Enlightenment in Germany who rejected the positions of (on one side) Moebius and (on the other) Van Dale with equal vigour was that of Johann Christoph Gottsched (1700–1766), a declared Wolffian and anti-Spinozist who, besides much else, prepared and annotated the German translation of Fontenelle's *Histoire* in 1730. In his explanatory preface, Gottsched reaffirmed the middle position in adroit and judicious terms. He insisted that both those who thought—like Baltus and Buddeus—that Satan and lesser demons had ordinarily operated the classical oracles and those who argue like Van Dale that they never did, were entirely misguided, the truth lying in between. He agreed it was important to expose, and eventually sweep away, the deplorable superstition, credulity and priestly fraud flourishing then among the common people and still thriving now; but equally, held Gottsched, magic undeniably exists and the Devil pervades the lives of men, so that a critical attitude to ancient oracle belief must not be permitted to become an attack on belief in the supernatural as such whether in the ancient or

<sup>16</sup> J.L. d'Alembert, 'Éloge de M. du Marsais', in: *Encyclopédie ou Dictionnaire raisonné des sciences des arts et des métiers*, ed. D. Diderot and J.L. d'Alembert, 17 vols. (Paris-Geneva-Neuchâtel, 1751–1772), VII, v–vii.

<sup>17</sup> See Francisco de Pina de Sá e Melo, *Triumpho da Religião. Poema epico-polemica* (Coimbra, 1756), 77.

modern context. Like other critics, Gottsched sought to undermine Van Dale's standing and respectability by noting that even among the Dutch Mennonites, 'his own sect, he is considered a man of evil opinions'.<sup>18</sup>

#### IV. Bekker

It is well known that the early Enlightenment publicity campaign against belief in magic and witchcraft with the aim of curbing superstitious belief in society, and putting an end to the witchcraft trials, had a wide impact in regions such as the Netherlands, France, Germany, Scandinavia and Italy and eventually brought these trials to an end across most of Europe, especially during the first half of the eighteenth century. But what has definitely not been adequately emphasized, is the extent to which the Dutch Bekker controversies of the 1690s served not merely to foreshadow this crucial process but also to set the tone and define the terms for the wider European debate which ensued.

While it is sometimes acknowledged that Christian Thomasius (1655–1728), the leading figure in the German drive against witchcraft belief, and the witch trials, at the beginning of the eighteenth century drew inspiration from Van Dale and Balthasar Bekker (1634–1698), rather than French or English writers, the real significance of the Bekker disputes in defining the wider intellectual debate has until very recently been seriously underestimated. Nothing could be more typical of the broad European picture, for instance, than the fact that the Italian campaign against belief in witchcraft and the witch trials of the late 1740s, initiated by representatives of the mainstream moderate Catholic Enlightenment such as Girolamo Tartarotti (1706–1761) in his *Del Congresso notturno delle lammie* (1749), earned themselves public respectability but got themselves into an extraordinary twist philosophically by adhering doggedly to the middle position. Tartarotti and his supporters granted that there was still far too much superstition and credulity in what most people believe concerning demons, satanic power, exorcism and witchcraft, that popular beliefs are indeed mostly nonsense, and that witch tri-

<sup>18</sup> See Gottsched's notes in Fontenelle, *Historie der heidnischen Orakel ... vermehret von Joh. Christoph Gottsched* (Leipzig, 1730), 211–212; Martin Pott, *Aufklärung und Aberglaube. Die deutsche Aufklärung im Spiegel ihrer Aberglaubenskritik* (Tübingen, 1992), 207.

als (of which there were still some in the north-east of Italy in the early eighteenth century) should cease. But they also argued, and with no less vigour, that we must nevertheless in accordance with the Church's teaching and the writings of the Church fathers, accept that magic, witchcraft, demons and exorcism all do exist, and did in some measure infuse the operations of the ancient oracles.

In this context Bekker became an ideological marker deployed by Tartarotti, Scipione Maffei (1675–1755), and other Italian participants in the debate to define and validate their positions. Even though there was no Italian or Latin translation of his *Betoverde Weereld* (1691–1693), Bekker was obviously widely known in Italy as the chief theorist maintaining on philosophical grounds that 'nec angelos nec daemones operari posse in hominum corpora, vel animos, neque id concipi posse',<sup>19</sup> known about mainly from erudite periodicals and encyclopedias, as well as survey works covering recent European philosophy such as those published in the early and mid 1740s by Antonio Genovesi (1712–1769), he became a stock item in mid eighteenth-century Italian intellectual discussion.<sup>20</sup>

According to most commentators, it was altogether unacceptable and impious to hold, 'like Balthasar Bekker', that Satan lacks the power to affect men or that demons cannot influence men's minds or bodies.<sup>21</sup> But at the same time, it was inevitable that writers such as Tartarotti and Maffei, precisely because they led the attack on belief in witchcraft, and on popular credulity, should be repeatedly accused of 'Bekkerianismus'.<sup>22</sup> Indeed, Maffei who went further in dismissing the ancient oracles as fraudulent, and was more outspoken, than Tartarotti, for tactical reasons vigorously condemned Bekker, contending that where Bekker and the Naturalists hold that magic is a 'chimaera', he, Maffei, unswervingly adhered to the 'Christian' position of Fontenelle that the working of magic and demonic power in the ancient oracles had ceased 'only since the coming of

<sup>19</sup> Francesco Domenico Bencini, *Tractatio historico-polemica chronologicis tabulis* (Turin, s.a.[1720]), 28.

<sup>20</sup> For instance in one of his sweeping generalizations about the negative consequences of the revolution in philosophy, Genovesi wrote: 'nam ex Cartesianismo profluxit Bekkerianismus et Spinozismus, ex Gassenistarum secta materialismus, Leibnitiana philosophia vergit ad idealismum, Neutonianiana ad purum mechanisum', see Franco Venturi (ed.) *Illuminati Italiani*, vol. 5: *Riformatori Napoletani* (Milan-Naples, 1962), 13–14; Genovesi, *Elementa metaphysicae*, 5 vols. (1743; 4<sup>th</sup> edn. Naples, 1760), II, 9.

<sup>21</sup> Girolamo Tartarotti, *Del Congresso notturno delle lammie libri tre* (Roverato, 1749), 421, 426.

<sup>22</sup> Israel, *Radical Enlightenment*, 401–403.

Christ our Lord', conveniently implying that he accepted the miraculous explanation for the ending of the oracles offered by the Church Fathers, even though it is doubtful whether Maffei, any more than Fontenelle, really believed that the supernatural powers of the oracles ever existed much less ceased with the coming of Christ.<sup>23</sup>

#### V. *Pantheismusstreit*

Nothing was more decisive in pushing the intellectual debate in mid eighteenth-century Europe towards Kant's 'Copernican revolution in thought', the philosophical crescendo of the late eighteenth century, than the 'cognitive crisis' that arose from the collision of Wolffianism (and dogmatic rationalism generally) with the incoming English empiricist stream and especially the philosophy of Hume. In itself this is well known. What has, however, been insufficiently noted about the great German intellectual drama is that it was less the mathematical criterion of truth itself which was undermined by Hume's biting empiricism than Cartesian, Leibnizian and Wolffian dogmatic rationalist techniques of fencing off reserved areas exempt from the dictates of mathematical rationality, either by means of a second substance that does not operate mechanistically or (as with the empiricists) by fixing insuperable epistemological limits to the scope of reason, thereby separating empirically verifiable knowledge from knowledge supposedly rationally justified, derived from sources (faith, revelation, intuition of the divinity) other than mathematical rationality. Closely examined, Locke's and Boyle's empiricism with its heavy emphasis on reserved areas for miracles and demons, turned out, as Jacobi understood, to be even more vulnerable to Hume's empirical sceptical assault than Spinoza whose dogmatic monism with its insistence that the whole of reality obeys a single set of rules, and that mathematical rationality is the only criterion of truth, proved more or less impervious to Hume's darts.

If modern historians mostly assume, like Condillac that Spinoza is demolished by the empiricist scythe no less surely than Descartes and Leibniz, the whole point of Jacobi's devastating deployment of Hume to undermine the Enlightenment enterprise as a whole was his conviction that Spinoza's is the only truly self-consistent form of philosophical rationality and the only one which survives Hume's

<sup>23</sup> [Anon.] *Riflessioni sopra l'Arte magica annichilata* (Venice, 1755), 5–6, 35–36, 56, 121–123.

assault. He believed furthermore that all moderate mainstream Enlightenment systems which endeavour to reconcile theology with rationalist philosophy by creating a reserved area for miracles, Providence and disembodied spirits, that is areas not subject to the ordinary physical laws of cause and effect, rest on unsustainable dogmas which ineluctably reduce to Spinozism. If Lessing grasped this truth, Mendelssohn, Goethe, Kant, Herder and the rest with their arduous attempts to refute Jacobi's argument, or discredit him, were in Jacobi's eyes just mincing words and deluding others.

During the period from 1750 to the 1780s, that of the 'cognitive crisis' in the German Enlightenment, a time in which Germany increasingly emerged as the chief philosophical arena, thinkers like Tetens, the pre-critical Kant, Herder, Mendelssohn and Lessing fought hard to reconcile their conviction that the world is structurally rational with the requirements of both religion and the empiricist critique. The world could be shown to be rational as far as experimental proofs could extend the reach of tested laws demonstrating a mathematically explicable, mechanistic structure governed by those laws while leaving no way to validate such structural principles beyond what could be experimentally proven. But the reason this generated so much disturbance in the minds of the leading thinkers of the age, especially in Germany, was not that empiricism therefore undermines the validity of the mathematical criterion of truth, for this it did not; but rather that it provides no clue as to how the mechanistic determinism, or fatalism, demonstrated by experimental proofs of natural laws can be held not to extend to the whole of reality. From this derived Jacobi's claim that the Leibnizian-Wolffian system is—just as Lange had urged in the 1720s and 1730s—ultimately no less fatalistic than Spinoza's and ineluctably leads the honest thinker to Spinozism. This implied that every scientific demonstration—and therefore every fully consistent rational philosophy—whether its author realizes it or not, entails fatalism.<sup>24</sup>

While Jacobi's intention was to reinforce faith, and thoroughly segregate faith from reason, his campaign nevertheless clearly implied that from a strictly philosophical standpoint only Spinoza's

<sup>24</sup> George di Giovanni, 'The First Twenty Years of Critique: the Spinoza Connection', in: Paul Guyer (ed.) *The Cambridge Companion to Kant* (Cambridge, 1992), 417–448; Steven Lestition, 'Kant and the End of the Enlightenment in Prussia', in: *Journal of Modern History* 65 (1993), 57–112, 82–85; Susan Neiman, *The Unity of Reason. Rereading Kant* (New York, 1994), 148; L.P. Wessel, *G.E. Lessing's Theology. A Reinterpretation* (The Hague, 1977), 79–99; Altmann, *Moses Mendelssohn*, 630, 638, 651.

system makes sense. Spinoza alone seems capable of weathering the intellectual turbulence emanating from the empiricist attack. Yet, the spiritual *volte-face* he called for as the sole reliable means of escaping from the Spinozist trap—the trap that philosophy lays for mankind—was firmly repudiated in their various ways by Mendelssohn, Kant, Goethe and Herder alike. None of the great thinkers of the time, however troubled and perplexed, were ready to accept the advisability, much less the necessity of, Jacobi's leap to faith. However, there were plenty of others, then and later, who were robust in offering support, Fichte going so far as to dub Jacobi the 'profoundest thinker of our time'.<sup>25</sup>

Meanwhile the core of Mendelssohn's refutation of Jacobi in his *Morgenstunden* (1785) was, remarkably enough, nothing less than to agree that Lessing was a Spinozist but with the proviso that he was a reformed or 'purified' Spinozist, that is an upholder of a new Spinozism which was not, after all, atheistic but rather embraced something like a Leibnizian-Wolffian theodicy so far as its concepts of God and the moral sphere were concerned.<sup>26</sup> Mendelssohn's counter-attack predictably produced accusations of a dangerous new type of Spinozism being surreptitiously poisoning German society and culture while simultaneously eliciting significant, if muffled, sounds of support. No doubt Goethe was being both jovial and ironic when he wrote to Jacobi, from Weimar, in December 1785, commiserating with him over his philosophical embroilment with the Jewish thinker, sardonically remarking 'wie klug er [Mendelssohn] Spinoza und Lessing eingeführt hat'.<sup>27</sup> But despite his reticence and desire to keep out of the public controversy, it is clear nonetheless that Goethe sympathized with Spinoza's (and Lessing's and Mendelssohn's) defenders. Indeed, as far as the leading minds of the younger generation were concerned (other than Fichte's followers and Schleiermacher), including the three young idealists at Tübingen—Hegel, Schelling and Hölderlin—Jacobi's onslaught on Lessing and Spinozism, far from delegitimizing the Enlightenment had, at least within the most refined intellectual circle, exactly the opposite effect. It effectively legitimized Spinoza and Spinozism.<sup>28</sup>

<sup>25</sup> Di Giovanni, 'The First Twenty Years of Critique', 436; Andrew Bowie, 'Introduction' to Friedrich Schleiermacher, *Hermeneutics and Criticism* (Cambridge, 1998), xiii–xv.

<sup>26</sup> Altmann, *Moses Mendelssohn*, 686–697.

<sup>27</sup> Goethe to Jacobi, Weimar, 1 Dec. 1785, in: M. Albrecht (ed.) *Moses Mendelssohn. Dokumente 1* (Stuttgart, 1995), 280.

<sup>28</sup> Terry Pinkard, *Hegel. A Biography* (Cambridge, 2000), 30–32.



To conclude, Goethe's stance serves as a telling reminder that while the *Pantheismusstreit* helped engender the strong reaction against the Enlightenment in German lands which began with the accession of Friedrich Wilhelm II in 1786,<sup>29</sup> and can even be said to have begun laying the foundations for the triumph of German illiberalism in the nineteenth century, it is equally true that by firmly linking Lessing in the public consciousness—and, beyond Lessing, enlightened philosophical rationalism in general—with Spinoza, it did much to raise the status of Spinoza and Spinozism in the minds of the most inquiring and emancipated young would-be philosophers and men of high culture. It was in this heady context that the young Schelling confided to Hegel, in February 1795, that he was a 'Spinozist' and by styling Hegel a spiritual intimate of Lessing seemingly took it for granted 'that Hegel too was a secret Spinozist.'<sup>30</sup>

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<sup>29</sup> Lestition, 'Kant and the End of the Enlightenment in Prussia', 64–66.

<sup>30</sup> Pinkard, *Hegel*, 31.

## THE CONSTRUCTION OF SILENCE: RELIGIOUS AND POLITICAL RADICALISM IN DUTCH HISTORY<sup>1</sup>

WIJNAND MIJNHARDT

In recent years, historians have established the view that the Dutch Enlightenment, in many respects, took place ahead of the general European Enlightenment. They believe that the Dutch Enlightenment can be divided into two distinctive phases: the first, more radical, Cartesian as well as Spinozist, taking place in the second half of the seventeenth century, and the second, more moderate in character, in the eighteenth. The intellectual battles of the radical phase centred on three closely interrelated themes: philosophy, religion, and politics. Three different groups took part in the debates. The radical Cartesians, such as Adriaan Koerbagh (1632–1669), Lodewijk Meyer (1638–1681), and, most important of all, Baruch de Spinoza (1632–1677) took Cartesianism towards its logical conclusion and succeeded in challenging the fundamentals of Christianity. The second group consisted of the staunchly orthodox Calvinists, headed by the Utrecht professor of theology Gisbert Voetius (1589–1676), who claimed that Cartesianism subverted all established religion and politics. The third group were the moderates who tried to steer a middle course.<sup>2</sup>

Initially, the radical Cartesians succeeded in dominating public debate, but towards the end of the century their influence was diminishing. Surprisingly, the ultimately successful campaign against the Cartesian radicals was organized not by the orthodox Voetians, but by moderate philosophers and theologians. By attacking Spinoza, his

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<sup>1</sup> Parts of this paper were read at conferences in Turin (Fondazione Einaudi, November 1998) and Los Angeles (William Andrews Clark Memorial Library, April 1999).

<sup>2</sup> For some recent surveys: Jonathan I. Israel, *The Dutch Republic. Its Rise, Greatness and Fall, 1477–1806* (Oxford, 1995); Margaret C. Jacob and Wijnand W. Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century. Decline, Enlightenment and Revolution* (Ithaca-London, 1992); Wijnand Mijnhardt, 'Province Unite', in: Vincenzo Ferrone and Daniel Roche (eds.) *L'Illuminismo. Dizionario Storico* (Rome-Bari, 1998), 462–477; Theo Verbeek, *Descartes and the Dutch. Early Reactions to Cartesian Philosophy, 1637–1650* (Edwardsville-Carbondale, 1992); Wiep van Bunge, *From Stevin to Spinoza. An Essay on Philosophy in the Seventeenth-Century Dutch Republic* (Leiden, 2001); Jonathan I. Israel, *Radical Enlightenment. Philosophy and the Making of Modernity, 1650–1750* (Oxford, 2001).

radical Cartesian colleagues and their popularizers, they expected to blunt the attack of the orthodox Voetians on themselves. They also hoped to show that the tenets of the new philosophy, and the new visions of science, politics and theology that were based upon it, did not necessarily lead to atheism; and finally they wanted to propagate themselves as the defenders of the religious and moral order.

Thus it would seem that in the first decades of the eighteenth century the Dutch had found a moderate compromise for most of the intellectual issues central to the *crise de la conscience européenne*. This compromise turned out to be fertile ground for the debate on the problems related to the country's decline that began to torment Dutch literati from the early decades of the eighteenth century on. However, it was not until the middle of the eighteenth century that the consequences of the Republic's economic and international decline, originating in the great wars against Louis XIV, became fully apparent. Unable to interpret decline in economic or political terms, Dutch enlightened intellectuals perceived the causes of decline as moral. As they presupposed an intimate link between economic and political prosperity on the one hand and cultural and moral superiority on the other, Dutch literati transformed the already familiar anti-French currents dating back to the French Wars into an explanatory ideology for the problem of decline. In the eyes of contemporaries, the adoption—first by the regents and then by the middling sorts—of French court-inspired models of conduct was detrimental to the classic republican virtues they thought to be chiefly responsible for the greatness of the Republic. Their belief in the perfectibility of mankind, however, precluded any pessimism about the future and only served as an incentive to continue to spread an enlightened moral civic philosophy.<sup>3</sup>

As a result, by the middle of the 1770s, Dutch intellectuals and literati had succeeded in creating a peculiar Dutch brand of moderate enlightenment, responsible for an interpretation of the nation's history that explained the nature and causes of Dutch cultural and political superiority, offered a coherent analysis of the problems of recent decline, and was capable of resuscitating precisely those morals that would enable the Dutch to restore their Republic to its former glorious position.

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<sup>3</sup> Wijnand W. Mijnhardt, 'Dutch Culture in the Age of William and Mary: Cosmopolitan or Provincial?', in: Dale Hoak and Mordechai Feingold (eds.) *The World of William and Mary. Anglo-Dutch Perspectives on the Revolution of 1688–1689* (Stanford, 1996), 219–233.

It is remarkable, though, that this two-phased interpretation of the Dutch Enlightenment has hardly any history itself. Indeed, until far into the 1970s, both Dutch and foreign historians agreed with Diderot's famous dictum: 'la nation est superstitieuse, ennemie de la philosophie et de la liberté de penser en matière de religion'.<sup>4</sup> In their view, Dutch intellectual life, until the 1670s, was in step with European humanist culture. Up to that date the Republic served as one of its chief centers owing to its tolerance, its universities and its publishing industry. However, from the last decades of the seventeenth century on, Dutch intellectual culture lost contact with European developments. European intellectual culture, transformed by the shift from Latin to French as the universal language of the learned, moved to other, more enlightened horizons. Only Dutch print culture was granted an important, though auxiliary role in the spreading of Enlightenment ideas.

In this paper I would like to explore, firstly, the way in which this remarkable silence developed. Why and how did Dutch national historiography come to ignore the complexity of the Dutch Enlightenment? I will try to show how the tradition of a moderate Dutch civic past, invented in the late eighteenth-century Republic precluded an appreciation of precisely those seventeenth-century problems that Dutch literati, radical as well as moderate, were trying to solve. Secondly, I will try to establish that the questions under debate in the later seventeenth-century Republic were only very tenuously related to international issues. Rather, they resulted from problems that had troubled the Dutch Republic from its infancy: religious diversity and political instability amidst unparalleled economic and social change and the persistence of war. The final point I wish to make is that the singularity of the Dutch debates and their results in turn were also responsible for an international silence. From the late seventeenth century on, the participants in the European debates, even those residing, writing and publishing on Dutch soil, regarded most Dutch ideas and solutions as irrelevant to their own intellectual predicament, thus writing the Dutch contribution out of the international Enlightenment.

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<sup>4</sup> Quoted from Diderot's *Voyage de Hollande* (1773–1774): H.L. Brugmans, 'Autour de Diderot en Hollande', in: *Diderot Studies* 3 (1961), 55–72, 65. See also Madeleine van Strien-Chardonneau, *Le Voyage de Hollande. Récits de voyageurs français dans les Provinces-Unies (1748–1795)*. *Studies on Voltaire and the Eighteenth Century*, vol. 318 (Oxford, 1995).

### I. *The Construction of Silence*

The exclusion of enlightened radicals such as Lodewijk Meyer, Adriaan Koerbagh, and Spinoza from Dutch national historical consciousness is an intriguing and complex narrative. In its development, it is possible to distinguish two different stages. The first stage has its origins in the second half of the eighteenth century. It was the by-product of the invention of a new national concept of the citizen. Its parameters and its view of the past left very little room for a Dutch radical enlightened tradition. The second phase began after 1815, when the expansion of traditional religion, coupled with the tremendous success of Christian—Catholic as well as Protestant—revivalism, further limited the chance of survival of the country's radical Enlightened past. The new religiously inspired revisions of the national legacy even began to obliterate the vestiges of Dutch moderate Enlightened thought.

Thus, the first steps towards the eradication of the radical Enlightenment from Dutch historical consciousness resulted from changes in Dutch conceptions of citizenship. The traditional Dutch idea of the citizen was medieval in origin. In early modern Dutch usage, citizenship had a strictly legal character and was explicitly situated in a local, urban context. A Dutch citizen was a privileged member of the urban community and citizenship included tangible economic, legal, political and social benefits. Citizenship was also exclusive. Only a limited number of urban inhabitants possessed civic rights and the rank and file of the urban populace were excluded. The rural population could never acquire citizenship.<sup>5</sup> While urban citizenship was a European phenomenon, Dutch towns occupied a special place, as they were the core of the Republic's policy-making machine, and it was in the town-councils that all important decisions were taken.<sup>6</sup>

<sup>5</sup> O. Moorman van Kappen, 'Iets over ons oud-vaderlands staatsburgerschap', in: *Gens Nostra* 41 (1986), 180–192; M.R. Prak, *Republikeinse veelheid, democratische enkelvoud. Sociale verandering in het Revolutietijdvak, 's-Hertogenbosch 1770–1820* (Nijmegen, 1999); W.R.E. Velema, 'Beschaafde republikeinen. Burgers in de achttiende eeuw', in: Remieg Aerts and Henk te Velde (eds.) *De Stijl van de Burger. Over Nederlandse burgerlijke cultuur vanaf de middeleeuwen* (Kampen, 1998), 80–99.

<sup>6</sup> For a more detailed analysis of changes in Dutch conceptions of citizenship, cf. Wijnand W. Mijnhardt, 'The Batavian Citizen. Dutch Ideas on moral citizenship in the Batavian period', in: Luc Borot (ed.) *Civisme & citoyenneté: une longue histoire* (Montpellier, 1999), 143–166. Cf. Joost Kloek and Wijnand Mijnhardt, *1800: Blauwdrukken voor een samenleving* (The Hague, 2001).

In the 1770s, an entirely new, morally inspired view of citizenship emerged. The new definition of civic virtue possessed a cognitive as well as a moral component. Contact with science and literature, to be summarized as enlightened encyclopedism, should provide the knowledge necessary for leading the life of a virtuous citizen. However, knowledge alone did not suffice; a refinement of the heart was also required. Worthy and civic conduct was not a matter of keeping up appearances and conforming to empty rules, but had to be controlled by an inherent morality. In short, modern civic virtue was the product of common sense and common sensibility.<sup>7</sup>

Religious changes further enhanced the moral-philosophical quality of this new ideal of citizenship, while simultaneously facilitating its acceptance. In the seventeenth and early eighteenth-century Dutch Republic, the established Protestant religion was firmly located in the visible political order and thus incorporated in the public sphere of the Ancien Regime. In the views of enlightened literati, however, religion belonged to the inner conscience of the private individual. Private individuals should be considered members of an invisible moral and civil community. The bounds of this new civic universe were set by the fatherland. Within a very short period of time, the term *fatherland* no longer denoted the town but the united Netherlands as a whole. As soon as a strict separation of state and church was enacted, nothing could bar Roman Catholics, Mennonites, Lutherans and Remonstrants from joining that moral civic community of the fatherland.<sup>8</sup>

The most important breeding ground for the new civic discourse was located in the circles of Dutch dissent, especially Arminians and Mennonites. Ever since the Dutch Revolt, religious dissenters had been excluded from politics, from the money that was part of it, and from almost all public office. It would seem that exclusion had been a central force behind much of their economic and cultural success. Dissenters were the middlemen through whom much of English, Scottish and German thought, the main sources of the moderate, later Dutch Enlightenment, was introduced into the Republic. They were also intellectually responsible for the new national and inclusive

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<sup>7</sup> For the importance of spectatorial discourse in this process, cf. Dorothée Sturkenboom, *Spectators van hartstocht. Sexe en emotionele cultuur in de achttiende eeuw* (Hilversum, 1998).

<sup>8</sup> Peter van Rooden, *Religieuze regimes. Over godsdienst en maatschappij in Nederland 1570–1990* (Amsterdam, 1996); N.C.F. van Sas (ed.) *Vaderland. Een geschiedenis vanaf de vijftiende eeuw tot 1940* (Amsterdam, 1999).

idea of citizenship that could do without the traditional exclusive legal and religious foundations and for which knowledge and virtue were the only prerequisites.<sup>9</sup>

The ideal of a socially and religiously inclusive moral and nation-wide community of citizens, however new, was not uniquely Dutch. It can be reconstructed for other parts of Europe as well. There are crucial differences though, that become abundantly clear when we analyse how these new civil universes construed their pasts. In France, for example, ruler and opposition had designed an image of a past and present in which the people were dominated by absolutism and aristocratic rule. Informed by such a past the step towards a modern concept of citizenship was a large one. As Mona Ozouf and Lynn Hunt have explained, it required the creation of a radically new image of man.<sup>10</sup> The Dutch case shows a completely different pattern. In the Netherlands it was possible to interpret the history of the seventeenth-century Golden Age, which in a period of decline had become the yardstick for every reform, as a prefiguration of the new moral and civil universe that was now taking shape. In contemporary perception the continuity between the civil worlds of the seventeenth and the late eighteenth centuries was broken only by the moral and economic decline of the intermediary period. The projection of the completely new ideal of moral citizenship onto the venerable seventeenth-century past created the long-standing myth of an unchanged Dutch civil society which continues to distort even our present image of Dutch history.

The conceptual difficulties that arose from the projection of the eighteenth-century 'burgher' ideal onto an early modern past, can be readily shown, for instance, by examining the political theories of the late eighteenth-century Patriot revolutionaries. To a certain extent, the Patriots were also orientated towards the past. They thought they could find the original political manifestations of their current ideals in the past. As a consequence, they attempted the impossible by linking the resurrection of historically legitimated participatory traditions to the establishment of modern abstract political rights, and placed this within a local and late medieval corporative context.

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<sup>9</sup> C. Trompetter, *Agriculture, Proto-Industry and Mennonite Entrepreneurship. A History of the Textile Industries in Twente, 1600–1815* (Amsterdam, 1997); Christine van Boheemen-Saaf, 'The Fiction of (National) Identity, Literature and Ideology in the Dutch Republic', in: Jacob and Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century*, 241–252.

<sup>10</sup> Mona Ozouf, *L'Homme régénéré. Essais sur la Révolution française* (Paris, 1989).

It took a French invasion to free Dutch theorists of their early modern urban republicanism and to prepare them for more appropriate notions of abstract political rights.

The historical projection of the new ideal of citizenship onto the early years of the Republic had other far-reaching consequences. It created the standard image of the proverbial and unchanging Dutchman: moderate, frugal, charitable, educated, sociable, courageous, disinterested, tolerant in religion, Christian but fervent enemy of obscurantist superstition. It is a type of discourse in which we now easily recognize a fusion of classical bourgeois topoi with modern visions of civil society into an enlightened and universal civilizing ideology. The discourse reminded contemporaries, however, of their lost seventeenth-century identity and of what they could become again if only they would give up their luxurious, aristocratic and frenchified habits and adopt the sturdy civic mores of their forefathers.

The consequences of this remodelling process for the historical image of the radical Dutch Enlightenment can easily be demonstrated by means of the historiographical fate of some of its champions, such as Balthasar Bekker (1634–1698) and Spinoza. Their literary fortunes were radically opposite. Bekker in the last decades of the seventeenth century had been the focus of fierce controversies, not only because his *Betoverde Weereld* ('World Bewitched', 1691–1693) once again destabilized the *modus vivendi* between philosophy and theology that so many moderate Cartesians sought to maintain, but most of all because of his liberal Bible interpretation which was believed to overturn all religious authority. Bekker's historiographical eighteenth-century fate is remarkable. Until the 1770s his fortune was mixed.<sup>11</sup> Authors of moderate persuasion praised his intellectual courage but criticized his ideas and his intransigence, while in most dictionaries criticism of his unorthodox opinions continued to prevail. At the end of the eighteenth century, however, Bekker's fortune experienced a remarkable change at the hands of various enlightened commentators, culminating in the quickly canonized views of Jacobus Scheltema (1767–1835), a notorious Patriot reformer, publicist and staunch advocate of the new Batavian civic ideal. For Scheltema, Bekker was an unrecognized genius and an intellectual hero, loyal to his ideas and a true Patriot *avant la let-*

<sup>11</sup> Jacob van Sluis, *Bekkeriana. Balthasar Bekker biografisch en bibliografisch* (Leeuwarden, 1994); Wendy de Visser, *Balthasar Bekker: Dienaar van het Goddelijke Woord, Doctor tot de Heilige Schrift. Een studie naar de Nederlandse Verlichting aan de hand van een gereformeerd predikant en zijn ideeën*, MA thesis, University of Utrecht, 1999, 57–70.



tre. From now on Bekker's image was stripped of its controversial, unorthodox elements and he came to be paraded as the champion of the type of civil society enlightened reformers aspired to impose. In enlightened journalism, in educational manuals and in eulogies and books devoted to his life and work Bekker was put on a national pedestal as the ideal Dutch citizen, an inspiration for the generations to come. Bekker had become: *the most faithful minister, the bravest man, the most charitable friend of humankind, and an exemplary Christian whose work still is the pride of our nation.*<sup>12</sup>

Spinoza's literary fortune, on the other hand, was completely different. After the conclusion of the major Spinozist battles in the first decades of the eighteenth century, Spinoza was relegated into oblivion. In the early nineteenth century he returned for a short moment in the authoritative multi-volumed *History of the Dutch Reformed Church* of 1819 of Anneus Ypey (1760–1837) and Isaac Dermout (1777–1867), only to be written out of the national intellectual heritage definitively soon afterwards.<sup>13</sup> Spinoza was portrayed as a Jewish pantheist who had misunderstood the true character of moderate Dutch Christianity. In Henry Collot d'Escury's (1777–1845) major survey of the Dutch contributions to the European arts and sciences (7 vols., 1822–1844), Spinoza is not even mentioned.<sup>14</sup> The lesser figures of the Dutch Radical Enlightenment such as Lodewijk Meyer, the Koerbagh brothers, Eric Walten (1663–1697), Lancelot van Brederode (1583–1668), and Johannes Bredenburg (1643–1691) were also written out of Dutch intellectual and religious history. One looks in vain for their names.

In the second phase of the elimination process that began in the 1820s, historians continued to ignore the radical heritage but also began to attack the moderate variety. The moral civic universe of the moderate Dutch Enlightenment in fact had been monolithic. The implementation of its ideal of a socially, religiously and nationally inclusive model of citizenship was seen as a universal duty of mankind

<sup>12</sup> Jacobus Scheltema, 'Het leeven, de leer en lotgevallen van Balthazar Bekker beschouwd in twee redevoeringen', in: *Algemeene vaderlandsche letter-oefeningen* (1804), part II, 49–66, 97–111, 145–157.

<sup>13</sup> Anneus IJpeij and Isaäc Johannes Dermout, *Geschiedenis van de Hervormde Christelijke Kerk in Nederland*, 4 vols. (Breda, 1819–1827), II. Cf. Peter van Rooden, 'History, the Nation and Religion. The Transformations of the Dutch Religious Past', in: Hartmut Lehmann and Peter van de Veer (eds.) *Nation and Religion. Perspectives on Europe and Asia* (Princeton, 1999), 96–111.

<sup>14</sup> Hendrik Collot d'Escury, *Hollands Roem in Kunsten en Wetenschappen, met Aanteekeningen en Bijdragen*, 7 vols. (The Hague, 1822–1844), V.

based on the enlightened principles of virtue, knowledge and happiness, even though these had acquired a national form, a national past and a national future. However, this moral civic universe was not destined to last. Ultramontane Catholics and orthodox Calvinists began to criticize sharply the moderate enlightened compromise that was its basis and to present their own alternative views. Initially, many Catholic leaders had applauded the Batavian Revolution of 1795 because it was responsible for their religious emancipation. Ultramontane influences of the post-Napoleonic period, however, brought them into the camp of the orthodox Calvinists who under the monarchy of William I (1813–1840) had evolved into serious critics of the church policies of their king. Both Catholics and Calvinists, from the 1820s on, organized vigorous campaigns modelled upon the mobilization techniques of the enlightened reformers. They founded numerous tract societies and missionary organizations that launched the most effective Christianization crusades of Dutch history.<sup>15</sup>

Though both religious groups heavily criticized the philosophical premises of the moderate Enlightenment, they accepted part of it, most of all its enlightened technique of writing history. To both orthodox Calvinists and ultramontane Catholics, history no longer was a collection of valuable examples comparable to legal precedents and chiefly useful for a governing elite. History now was believed to present the sole path to the true knowledge of one's own condition and a meaningful source of inspiration for the future. Thus, Catholic leaders such as J.G. le Sage ten Broek (1775–1847) created a new idealized vision of a Catholic Holland of the Middle Ages that had been destroyed by the Reformation.<sup>16</sup> The Calvinists, though, did something much more fascinating by adapting to their own end the image of the golden seventeenth century which had been developed by the moderate enlightened intellectuals. In order to justify their continuing crusade against the moderate Enlightenment, their political and spiritual leaders, Guillaume Groen van Prinsterer (1801–1876)

<sup>15</sup> Guy Biart, 'Lesegesellschaften im Dienste der Gegenauflklärung', in: Otto Dann (ed.) *Lesegesellschaften und bürgerliche Emanzipation. Ein europäischer Vergleich* (Munich, 1981), 197–212; E.F. Kruijf, *Geschiedenis van het Nederlandsche Zendeling-Genootschap en zijne zendingsposten* (Groningen, 1894); J. Boneschansker, *Het Nederlandsch Zendeling Genootschap in zijn eerste periode. Een studie over opwekking in de Bataafse en Franse Tijd* (Leeuwarden, 1987); Van Rooden, *Religieuze regimes*, 121–146.

<sup>16</sup> Peter Raedts, 'Katholieken op zoek naar een Nederlandse identiteit', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden*, 107 (1992), 713–725; G. Görris, *J. G. le Sage ten Broek en de eerste fase van de emancipatie der katholieken*, 2 vols. (Amsterdam, 1947–1949).

and Willem Bilderdijk (1756–1831), invented a vision of a Calvinist civic seventeenth century in which the majority of people had been orthodox believers.<sup>17</sup> In their eyes the Dutch Enlightenment of the late eighteenth century and its supposedly French sources had meant a complete deviation from the path of the fathers, which could only be remedied by a process of re-Christianization. Their view of sixteenth- to eighteenth-century history showed a nation that as a result of its conversion to the reformed religion, had experienced an age of unparalleled prosperity and prestige. Only the erosion of that religion by the Enlightenment, both radical and moderate, was responsible for the nation's decline. So intervention was imperative, and with that objective the Calvinists founded their missionary and tract societies.

This religiously inspired resistance to the enlightened moralistic universe reduced its adherents from universalists to mere liberal ideologists. Early liberal commentators, such as Jeronimo de Bosch Kemper (1808–1876) in the 1830s tried to invigorate the moderate Enlightenment heritage but, due to the arguments employed, only succeeded in marginalizing its importance.<sup>18</sup> The strategy of these liberal literati was twofold. Firstly, they developed the view of an unbroken Dutch liberal tradition ranging from Erasmus of Rotterdam in the sixteenth century, through Balthasar Bekker in the seventeenth, to the moderate Enlightenment of the eighteenth and beyond. Thus a vision of Dutch history was generated in which the Enlightenment was just a minor phase in a tolerant, civic, democratic, and urban tradition that did not stem from the Enlightenment but had its origins in the Revolt against Spain.

Secondly, in the view of these historians, the Reformation had an even more serious contribution to make to liberalism than the Enlightenment. Here the typically Dutch connection between liberalism and Protestantism begins. In order to be able to complete that liberal vision, the Catholics needed to be removed from the nation's intellectual, political and cultural scene. Before the Revolution of 1795 Catholics had been the largest minority (c. 38%). Despite the separation of church and state in 1798, they had been remarkably

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<sup>17</sup> G.J. Schutte, 'Nederland: een calvinistische natie?', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden* 107 (1992), 690–702; Joris van Eijnatten, *God, Nederland en Oranje. Dutch Calvinism and the Search for the Social Centre* (Kampen, 1993).

<sup>18</sup> J. de Bosch Kemper, *Staatkundige Geschiedenis van Nederland tot 1830* (Amsterdam, 1868), 289.

unsuccessful in claiming their legitimate place in local, provincial, and national government. After 1801 they even lost great numbers of their recently acquired offices. Though the Revolution had supplied the Catholics with a legitimate place in civil society, they were now effectively shut out of political and cultural decision-making in the nation. An anti-Papist discourse developed that differed sharply from the Ancien Regime variety. Whereas anti-Papism before 1800 had had a dogmatic religious flavour, it was now turned into a full-blown semi-secular conspiratorial ideology, supported by liberal Protestants and orthodox Calvinists alike. Catholics were accused of planning to take over the Dutch Protestant nation. As a result, all Catholic efforts to put their newly won religious rights into effect were interpreted as part of that conspiracy. Moreover, despite their civic rights, Catholics were considered unable to govern, as Catholicism on the one hand and Reformation and Enlightenment on the other, were judged to be fundamentally incompatible.<sup>19</sup> The successful exclusion of Catholicism from the intellectual nation was largely responsible for the peculiar situation that in the Netherlands a division into clericalism and anti-clericalism never developed. Modernity was identified with liberal Protestantism while conservatism was associated with orthodox Calvinism.

The events of the 1830s meant a split in the Dutch liberal movement. The secession of Belgium, the uncertainty about the viability of the small Dutch state that was left after the treaty of London in 1839, and the unwillingness of the Dutch monarchs to grant a more democratic and parliamentary constitution, created an atmosphere of gloom in which a radical group of younger liberals under the leadership of writers such as E.J. Potgieter (1808–1875) and politicians such as Johan Rudolf Thorbecke (1798–1872) went looking for a culprit for their contemporary woes. While the liberal conservatives still had a place for the Enlightenment, be it marginal, the young liberals from now on could do without it. In a series of influential pamphlets, Potgieter denounced his own time and the historical events that had produced it.<sup>20</sup> In the *State Museum*, for instance, he made an imaginary tour of the great seventeenth-century masters and confronted the historical image he thought he could

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<sup>19</sup> Cf. Th. Clemens, 'De terugdringing der katholieken uit de verlicht-protestantse natie', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden* 110 (1995), 27–39.

<sup>20</sup> Remieg Aerts, *De Letterheren. Liberale cultuur in de negentiende eeuw* (Amsterdam, 1997), 106–125.

read into their paintings with his views on the eighteenth century. The outcome was predictable. The eighteenth century should be interpreted as an age of decline as compared to the seventeenth, and as the cause of the mid nineteenth-century problems. The mental make-up of the eighteenth-century Dutchman was seriously defective and this psychological factor was responsible for their disappointing cultural and intellectual performances. Thorbecke analysed the causes of the political and constitutional crises of the 1830s and 1840s and located their origins in the Batavian period.<sup>21</sup> The Dutch Batavians had failed to exploit the democratic constitutional options available to them and thus had burdened the country with an outdated political system. As if to demonstrate the ineffectiveness of the national intellectual legacy, Thorbecke drew his liberal inspiration from German romantic sources. And Thorbecke was no exception. Dutch mid nineteenth-century debates on idealism and positivism did not spring from the Dutch experimental scientific tradition of the later seventeenth and early eighteenth centuries, nor from the late eighteenth-century debates on the importance of Kantian philosophy, but derived exclusively from the intellectually hardly attractive reception of contemporary French and German philosophers such as Comte and Hegel.<sup>22</sup>

Thus, in the period 1815–1850 the joint efforts of Catholics, orthodox Calvinists, and liberal Protestants, although inspired by entirely different motives, had succeeded in removing the Dutch Enlightenment, both in its radical and moderate varieties, from Dutch historical consciousness. The construction of silence had been completed. This view of national history, of which a self-assured Protestant Dutch citizen of almost timeless proportions constituted the backbone, over the next hundred years was canonized, consecrated, and embellished, producing an almost indestructible historical narrative. The only remaining bone of contention was the question whether that *original Dutch burgher* was a liberal Protestant or a Calvinist conservative. To solve that issue research efforts into the sixteenth and early seventeenth centuries became paramount. As a result, Enlightenment studies became a marginal affair.

The second half of the nineteenth century witnessed a consolidation of the views that had been proposed in the preceding years. The victory of Dutch parliamentary constitutionalism after 1848 and

<sup>21</sup> C.H.E. de Wit, *Thorbecke en de wording van de Nederlandse Natie* (Nijmegen, 1983).

<sup>22</sup> Cf. Kaat Wils, 'August Comte in Nederland', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden* 112 (1997), 19–48.

a successful policy of industrialization, together with a profitable exploitation of the East Indian Empire, were responsible for a remarkable economic recovery. Its result was an atmosphere of optimistic nationalism in which engagement with the history of the nation's decline lost much of the appeal it had had in the first half of the century. Even the venerable seventeenth century lost some of its attraction. In the last decades of the nineteenth century Holland produced an impressive series of world famous scientists and Nobel prize winners, while also in the arts and letters the Netherlands again made a significant contribution to European culture. As one of Holland's most influential historians of the time, Johan Huizinga (1872–1945) put it in 1913: 'We no longer need to adore sixteenth- and seventeenth-century accomplishments. We produce them now again ourselves. We live again and we dare to show it'.<sup>23</sup>

The various vistas of the Dutch Enlightenment current in the first decades of the twentieth century perfectly document the process of religious compartmentalization that came to a full deployment in these years.<sup>24</sup> Though the consensus about the unimportance of the Dutch Enlightenment remained, its motives varied according to denomination. The very success of the Christianization missions of both Catholics and Protestants was reflected in their ongoing attack on the Enlightenment. Abraham Kuyper (1837–1920), for instance, the undisputed political leader of the Dutch Protestants, fervently defended the existence of spirits and devils against Balthasar Bekker.<sup>25</sup> Liberal historians also continued to ignore the Enlightenment. In 1906 the definitive biography of Bekker appeared. Here Bekker was presented as the epitome of the Dutch liberal and tolerant tradition, a view that could simultaneously support the interpretation that the Republic had already reached a substantial degree of enlightenment long before the other nations of Western Europe.<sup>26</sup> Even radical liberal and socialist intellectuals who, in search of their roots, founded the Dutch freethinking and atheist movements from the later nineteenth century on, failed to trigger a new appreciation of the Dutch

<sup>23</sup> J. Huizinga, 'De beteekenis van 1813 voor Nederland's geestelijke beschaving', in: *Verzamelde Werken*, 9 vols. (Haarlem, 1948–1953), II, 45–98, cited by Henk te Velde, *Gemeenschapszin en plichtsbef. Liberalisme en nationalisme in Nederland, 1870–1918* (The Hague, 1992), 225.

<sup>24</sup> Cf. for Dutch religious denominationalism: A.J. Lijphart, *The Politics of Accommodation. Pluralism and Democracy in the Netherlands* (Berkeley, 1968).

<sup>25</sup> A. Kuyper, *De Engelen Gods* (Kampen, 1923), 7.

<sup>26</sup> W.P.C. Knuttel, *Balthasar Bekker. De bestrijder van het bijgeloof* (The Hague, 1906).

Enlightenment, radical or moderate.<sup>27</sup> Instead, they drew their intellectual inspiration mostly from German sources. It was in these academic circles, stimulated by the freethinker and historian Johannes van Vloten (1818–1883) that a modest Spinozist revival took place. The intensive study of Spinoza's work that resulted from this revival, however, did not excite a new interest in the radical Dutch Enlightenment. Spinoza was seen as an isolated figure who had few contacts and little influence in late seventeenth-century Holland. Most of the valuable work done in these circles, was unhistorical, the works of Spinoza and his Cartesian friends being read as solutions to perennial problems of religion and philosophy.<sup>28</sup> By focusing on technical issues such as plausibility and internal coherence they also discarded many of the works of Spinoza's amateur-followers as not up to the philosopher's standard. These intellectuals wanted most of all to harmonize Spinoza's ideas with those of German materialist philosophers such as Moleschott and Feuerbach.<sup>29</sup> One is tempted to venture the hypothesis that the limited success of Dutch philosophical materialism and positivism had much to do with the failure of Dutch intellectuals to come to grips with their own radical and moderate enlightened heritage.

When in the 1920s and even more in the 1930s the Enlightenment became a renewed source of inspiration to many, in a Europe threatened by Fascism and dictatorship, the Netherlands were, once again, an exception to the rule. In 1938 the former communist and very influential socialist historian Jan Romein (1893–1962) published a four-volume series of national biographies.<sup>30</sup> His aim was to strengthen the nation's willingness to fight Fascism and to render the Dutch immune to the false nationalism of Hitler's Ger-

<sup>27</sup> Cf. Siebe Thissen, 'Spinozism Bursts Forth into Dutch Cultural Life (1854–1872)', in: Wiep van Bunge and Wim Klever (eds.) *Disguised and Overt Spinozism around 1700* (Leiden, 1996), 117–134, and 'Een wijsgerige beweging in Nederland en haar publieke rol', in: *Krisis* 15 (1995), 22–39; C.J. Offringa, 'De wijsgerige geschiedkunde van Johannes van Vloten: Aufklärung en liberalisme', in: J.A.L. Lancée (ed.) *Mythe en werkelijkheid. Drie eeuwen vaderlandse geschiedbeoefening (1600–1900)* (Utrecht, 1979), 200–238; M. Mees-Verwey, *De betekenis van Johannes van Vloten* (Santpoort, 1928).

<sup>28</sup> An exception is the work of Koenraad Meinsma, a freethinker from the school of Johannes van Vloten, who wrote a very important study of Spinoza's circle, cf. K.O. Meinsma, *Spinoza en zijn kring. Over Hollandsche vrijgeesten* (The Hague, 1896).

<sup>29</sup> Mees-Verwey, *De betekenis van Johannes van Vloten*, 200–216.

<sup>30</sup> Jan and Annie Romein-Verschoor, *Erflaters van onze beschaving*, 4 vols. (Amsterdam, 1938–1939). Cf. H.M. Beliën (ed.) *Vijftig jaar erflaters. Een terugblik op De erflaters van onze beschaving van Jan en Annie Romein* (Rotterdam, 1990).

many. Romein's criteria for the selection of figures to be included in the series were typical. The number of eighteenth-century figures was limited, and the Golden seventeenth century served again as the reservoir par excellence of national examples. Though Romein included Spinoza in his selection, this definitely did not mean a rehabilitation of the Dutch Enlightenment. For Romein, Spinoza had become an intellectual hero, a forerunner of the freethinking tradition of the late nineteenth century, but also an isolated figure who did not fit into Dutch culture as he perceived it.<sup>31</sup>

Only after World War II and especially since the 1970s has a painstakingly slow process of revaluation of the Dutch Enlightenment begun. The waning of traditional nationalism for instance, created an atmosphere receptive to change. In this context it is important to stress the significance of foreign interpretation models. Due to the replacement in international historiography of the French and cosmopolitan interpretation by a national vision, the Enlightenment came to be associated with the efforts of local intellectuals to identify the nation's central problems and to contribute to their solutions.<sup>32</sup> Such a perspective has been extremely helpful in rescuing the Dutch moderate Enlightenment from oblivion. The rediscovery of the seventeenth-century radical Enlightenment is also closely connected with international historiography, especially to the groundbreaking work of the American historian Margaret Jacob.<sup>33</sup> Her thesis with the two Enlightenments (one radical and one moderate) in the early decades of the eighteenth century, has been central to the rediscovery of a radical Dutch Enlightenment. However, the most important factor has been the dramatic secularization of Dutch society. In less than three decades the Netherlands of today have developed from one of the most religious countries in the west into one in which traditional religion has almost become a marginal affair. The results for the study of the Enlightenment are paradoxical. On the one hand the Dutch writing of history was freed from the religious constraints that had dominated the field for almost two centuries. On the other, as modern Dutch secularism has no roots

<sup>31</sup> Jan and Annie Romein, 'Baruch de Spinoza', in: *Erfolters van onze beschaving*, II, 288–321.

<sup>32</sup> Roy Porter and Mikolas Teich (eds.) *The Enlightenment in National Context* (Cambridge, 1981); cf. Wijnand W. Mijnhardt, 'De Nederlandse Verlichting in Europees perspectief', in: *Theoretische Geschiedenis* 10 (1983), 335–347.

<sup>33</sup> Margaret C. Jacob, *The Radical Enlightenment. Pantheists, Freemasons and Republicans* (London, 1981) and recent contributions to that tradition: Van Bunge, *From Stevin to Spinoza* as well as Israel, *Radical Enlightenment*.



in an indigenous Enlightenment tradition, present-day research into the Dutch Enlightenment is mostly a historian's and only very rarely a political affair.

## II. *The Singularity of Dutch Radicalism*

When in the 1980s and 90s historians revisited the 1650–1800 period in search of a Dutch Enlightenment, they found the field mostly plowed by historians of literature and a few isolated philosophers. Literary historians studied authors such as Koerbagh, Walten, or Meyer as minor literary figures or because of their contribution to historical linguistics.<sup>34</sup> Philosophers were chiefly attracted by the genius of Spinoza, whom they did not interpret as a historical figure, but whose ideas were conceptualized as a major leap in the philosophical growth of humanity. What was missing was an interpretation of the intellectual legacy of the Dutch theorists as ideologies of particular groups with more or less defined interests. Such a historicized approach would eventually show that the first, radical phase of the Dutch Enlightenment had not been struggling with perennial philosophical problems, but was concerned with finding solutions to typically Dutch versions of seventeenth-century problems such as tolerance and the relationship of church and state. A brief survey of these problems and the debates on these issues will serve to illustrate this point.

At the beginning of the Dutch Revolt, the revolutionary elites never planned to create an independent Dutch state. When towards the end of the sixteenth century the Dutch Republic (though not yet equipped with well-defined territorial borders) slowly became a political reality, no consensus was available on how to organize the new state. Nor was a solution available to the problem of religious minorities. Even the political system was under debate. To many revolutionaries a Republic was inconceivable and, as a consequence, the sovereignty of the rebel provinces was offered to a series of European candidates. The only political document available was the Union of Utrecht, a treaty dating back to the first stages of the Revolt, which never had been intended to serve as the basis for a new state.

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<sup>34</sup> Cf. the valuable work undertaken by C. Louise Thijssen-Schoute in the 1950s and 1960s, especially her monumental survey *Nederlands cartesianisme* (Amsterdam, 1954). However, she never related Dutch Cartesianism to international Enlightenment thought.

The central problems were those of sovereignty and political participation.<sup>35</sup> Two pretenders to sovereignty prevailed: firstly, the provinces and the almost sovereign towns, which constituted the core of most Provincial Estates and saw themselves as descendants of the Roman city state tradition, and, secondly, the stadholders, the lieutenants of the Spanish king in the provinces, whom the revolution had left in place, and whose powers would increase in a centralized state. The main bone of contention was the States General. No one intended the States General or one of its organs to be elevated to a sovereign position, but both the stadholder and the province of Holland which supplied almost 60 % of the state's financial burden, tried to extend the powers of the States General in order to enhance their own influence. As only temporary solutions were reached, sovereignty in the Dutch Republic was in permanent flux.

No definitive solution for the issue of political participation was reached either.<sup>36</sup> After the deposition of the king in 1581, political power in the cities was often contested. Corporative local institutions such as the guilds and the militias claimed a part in local government now that its power and authority had been greatly increased. Though most city councils managed to thwart formal corporative influence, as a result they had to accept a fundamentally instable political structure that could only be balanced by seeking compromises acceptable to an ever changing majority of local interests, without pushing matters to an extreme.

The religious situation did not contribute to political stability either.<sup>37</sup> The reason why religious diversity in the Dutch Republic was apparently much more persistent than in England, France, or Germany owed as much to the way in which the Reformation had been introduced into the Low Countries, as to the singular political structure of the Republic. The Reformation had never enjoyed either open or tacit support from the secular authorities. As a result, none of

<sup>35</sup> G. de Bruin, 'De soevereiniteit in de Republiek: een machtsprobleem', in: *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden* 94 (1979), 27-40; Wijnand W. Mijnhardt, 'The Dutch Republic as a Town', in: *Eighteenth-Century Studies* 31 (1997-1998), 345-349.

<sup>36</sup> D.J. Roorda, *Partij en Factie. De oproeren in 1672 in de steden van Holland en Zeeland, een krachtmeting tussen partijen en facties* (Groningen, 1961); Henk van Nierop, 'Popular Participation in Politics in the Dutch Republic', in: Peter Blickle (ed.) *Resistance, Representation and Community* (Oxford, 1997), 272-290.

<sup>37</sup> For a very useful recent analysis, Wiebe Bergsma, 'Church, State and People', in: Karel Davids and Jan Lucassen (eds.) *A Miracle Mirrored. The Dutch Republic in European Perspective* (Cambridge, 1995), 196-228.

the competing religions ever succeeded in getting a strong majority. Though in 1811, at the first national religious census, 55 % of the population belonged to the Dutch Reformed Church, it is very likely that in the mid-seventeenth century, Calvinism and Catholicism were still at loggerheads, with c. 40 % of the population (or even less) each, while dissenters of an almost unimaginable variety including those who had not yet decided to join one of the competing religions, constituted more than 20 % of the inhabitants.

The Dutch ruling classes would very much have preferred to be able to put pressure on the population to enter the Reformed Church. They dreamed of a manageable, broad, and popular established church that would supply a religious refuge for as many reformed varieties as possible, provided such a predominant church would be organized on a provincial level. Dutch politicians feared a reformed church that, by means of national councils and synods, would become a crucial power in federal politics. In order to keep the Calvinist church under control, the regents were prepared to grant it a privileged position, to pay its ministers from the revenues of confiscated catholic properties, and to support it in a great variety of other ways. That the creation of such a broad and popular reformed church was nevertheless a failure, was due as much to the intractability of the Calvinist consistories as to the prevalent ideals of tolerance.

Calvinists were a large minority. Only a limited number of Calvinists belonged to the orthodox party, who despite their numbers continued to harass the magistrates into their presumed duties to uphold the cause of *the true religion* and to prosecute dissenters. They also succeeded in imposing their views on the nature of the Calvinist church on the moderate majority. As a result, most consistories were by no means eager to receive the rank and file of the population in their midst. On the contrary, they applied very strict rules for admission and laid a heavy emphasis on church discipline with expulsion as the ultimate penalty.<sup>38</sup> On the other hand, the use of force in matters religious, was equally impossible as it would have violated the basic provision of the Utrecht Union: *that each person shall remain free in his religion and that no one shall be investigated or persecuted because of his religion*. A firm Calvinization policy was therefore out of the question. Though basic tolerance was never seriously disputed, tolerance in general in the Republic was not a principled, but a pragmatic affair.

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<sup>38</sup> Herman Roodenburg, *Onder Censuur. De kerkelijke tucht in de gereformeerde gemeente van Amsterdam, 1578–1700* (Hilversum, 1990).

Dutch city officials simply did not have the military or political power to enforce conformity. As a result, religious tolerance and freedom of press were much greater here than abroad. However, this freedom can only be understood within the unstable and complex political framework of compromises discussed above. As nobody could derive any rights from such compromises, the history of the Republic too, supplies us with a varied list of condemned individuals and banned books.<sup>39</sup>

Finally, these quarrels over politics and religion took place against a background of unrivalled—at least from a European perspective—‘public opinion’. The Dutch Republic had rapidly developed into the most urbanized area of Europe.<sup>40</sup> The concept of Holland as a town is not just another metaphor. The period 1550–1650 saw unparalleled economic growth and an unprecedented urbanization process. The population doubled and around 1650, 34 % of the inhabitants of the Republic lived in towns of more than 10,000 people. France, with only 9 %, cut a poor figure in comparison, and Germany with less than 5 % an even poorer one. Not even England with 13 % could touch these numbers. In city life, literacy was a fundamental requirement. The Republic almost from its infancy was a very literate society, permeated with commercial values and there was a huge demand for the flood of printing from the many cheap presses.<sup>41</sup> The spectacular international book trade, which made Dutch printing famous, was nevertheless a hazardous and economically often overrated enterprise. Even in its commercial heyday, it was heavily dependent on and financed by the large profits made in the extensive home market for books in the vernacular.<sup>42</sup> The Republic therefore boasted large and mobile audiences interested in politics and all questions of religion. Though Dutch newspapers (including those published in other languages) were read and praised

<sup>39</sup> E.H. Kossmann, ‘Freedom in Seventeenth-Century Dutch Thought and Practice’, in: Jonathan I. Israel (ed.) *The Anglo-Dutch Moment* (Cambridge, 1991), 281–298; Wijnand W. Mijnhardt, ‘Tolerantie als politiek probleem’, in: *Rekenschap* 43 (1996), 121–128.

<sup>40</sup> J. de Vries and A.M. van der Woude, *Nederland 1500–1815. De eerste ronde van moderne economische groei* (Amsterdam, 1995).

<sup>41</sup> For a recent comparison of the Dutch Republic with other European commercial centers: Margaret Spufford, ‘Literacy, Trade and Religion in the Commercial Centres of Europe’, in: Davids and Lucassen (eds.) *A Miracle Mirrored*, 229–283.

<sup>42</sup> Roger Chartier, ‘Magasin de l’univers ou magasin de la République? Le commerce du livre néerlandais aux XVIIe et XVIIIe siècle’ in: C. Berkvens-Stevelinck *et al.* (eds.) *Le Magasin de l’Univers. The Dutch Republic as the Centre of the European Booktrade* (Leiden, 1992), 289–308.

all over Europe, the extended literate audiences of the Republic thrived on the production and distribution of large quantities of anonymous pamphlets covering internal and external politics and religious affairs, often garnished with biting political commentary, in times of peace as well as war.<sup>43</sup> This politicized literate audience did not shrink from scientific and scholarly matters either, as can be shown from the instant translation of a good part of Latin university orations and disputations.<sup>44</sup> Moreover, news travelled fast in a small Republic with excellent and regular connections, a key position in the international urban network, and a well-integrated interregional economy.

All these elements taken together made for a fundamentally unstable political structure. Quite naturally, the decentralized system with its inbuilt need for compromise was able to accommodate many different political demands, but religious disputes could join hands with political unrest very easily amidst international crisis, as can be shown from a long series of major seventeenth-century conflicts.<sup>45</sup> The prolonged crisis of 1607–1627 is a perfect example. The conflict had its origins in a theological dispute on free will between orthodox Calvinists and liberal Arminians at Leiden University; the quarrels soon aroused extended public support, and both parties succeeded in enlisting influential political allies. Eventually, the dispute developed into a major conflict in which the position of the stadholder and the states of Holland, the role of Amsterdam, conflicting visions on the public role of the Calvinist church, the future of the war with Spain and international politics were at stake. The conflict ended with Grand Pensionary Johan van Oldenbarnevelt (1549–1619) dying on the scaffold, the consolidation of the position of stadholder Maurice of Orange (1567–1625), and a full-blown Calvinist revolution. In the 1646–1650 crisis a similar pattern occurred. Holland and Amsterdam tried to shift the balance by subverting the stadholder model of decision making and, after the sudden death of stadholder William II (1626–1650), by revolutionizing the political system of the Republic once again. The revolution of 1672 that caused the

<sup>43</sup> G. de Bruin, *Geheimhouding en Verraad. De geheimhouding van staatszaken ten tijde van de Republiek (1600–1750)* (The Hague, 1991), 77–92; Craig E. Harline, *Pamphlets, Printing and Political Culture in the Early Dutch Republic* (The Hague, 1987).

<sup>44</sup> For Dutch seventeenth-century translation culture, C.L. Thijssen-Schoute, *Uit de Republiek der Letteren. Elf studiën op het gebied der ideeëngeschiedenis van de Gouden Eeuw* (The Hague, 1967).

<sup>45</sup> For some recent overviews Israel, *The Dutch Republic* and J.L. Price, *Holland and the Dutch Republic in the Seventeenth Century. The Politics of Particularism* (Oxford, 1994).

death of the great Grand Pensionary Johan de Witt (1623–1672) at the hands of a mob, anew paralysed the system, bringing about the greatest crash on the Amsterdam exchange of early modern times. This time the civil conflict ended with the rise to unparalleled power of a new stadholder, later to become English king William III (1650–1702). War meant crisis in the Dutch Republic, and there was hardly a year in the seventeenth century when the Republic was not engaged in conflict somewhere around the globe.

In this inherently unstable and fluid political and religious climate, Cartesianism functioned as a trigger. The initial skirmishes about Cartesianism took place at Utrecht University in the 1640s. At that time Cartesianism was still an almost exclusively academic affair.<sup>46</sup> Its main effect was to create a sharp contrast between official academic policy and what was actually being thought, taught and discussed behind the scenes, resulting in the exposing to Cartesianism of large parts of the student body, and, consequently, of the Republic's future intellectual and political elites. In the 1650s and 1660s, the impact of Cartesianism intensified, undoubtedly stimulated by the translations of all of Descartes' works into Dutch during the later 1650s. Much more importantly, Cartesianism became the subject of violent public debate. While Descartes himself had entertained strict views on the nature and number of subjects to which his ideas and methods could be applied, his Dutch followers went much further and employed Cartesianism to find solutions for all the problems that had tormented the young Republic since the early 1600s: the nature of the political system, the relationship between state and church, and the interpretation of the Bible which, in the Republic, had become a heavily politicized affair.

Until the advent of Cartesianism, Dutch political theory, apart from a few exceptions, had been essentially academic, Aristotelian and humanist with Calvinist constitutionalist overtones. At Leiden University it was even monarchical. The influential propagator of this view, the Leiden professor Franco Burgersdijk (1590–1635), in his *Idea Politica* (1635) praised monarchy as the original form of government, even though in his view the Republic would be best served by a mixed constitution.<sup>47</sup> It was the radical followers of Descartes outside the universities, such as the the Utrecht magistrate Lambert

<sup>46</sup> For a detailed analysis cf. Verbeek, *Descartes and the Dutch*.

<sup>47</sup> H. Wansink, *Politieke Wetenschappen aan de Leidse Universiteit* (1575–1650) (Utrecht, 1975); E.P. Bos and H.A. Krop (eds.) *Franco Burgersdijk (1590–1635). Neo-Aristotelianism in Leiden* (Amsterdam, 1993).

van Velthuysen (1622–1683), the brothers De la Court (Pieter 1618–1685; Johan 1622–1670) and Spinoza, who tried to apply Cartesianism to solve the Republic's greatest political problems: to define and locate sovereignty, and to establish an acceptable degree of popular involvement in politics taking human nature as its point of departure.<sup>48</sup>

The first Cartesian political theorist to address these problems was Van Velthuysen who tried to steer a course away from Hobbesian absolute political philosophy. Since the Republic had its origin in war against tyranny, it could not possibly be tyrannical itself. Convinced that arguments from authority had to give way before rational arguments, Van Velthuysen developed a new theory of sociability in which the rules and norms of public morality were to be perceived as the results of the actual functioning of the social system. The treatises of the De la Court brothers may be read as a practical sequel to Velthuysen's ideas. For the De la Courts sovereign power is not located in a monarch but resides in the people. The real *raison d'état* is the promotion of an active and prosperous population, since only then will the rulers be forced to care for the public good in their own interest. In this way they proposed a new republican reason-of-state doctrine that resulted from the confrontation of the moral views of Van Velthuysen with the Dutch practice of political liberty. Van Velthuysen and the De la Court brothers mainly supplied brilliant but isolated observations. It was Spinoza who raised their views to a coherent political philosophy. Though Spinoza never tried to offer an explanation for the actual Dutch republican system of politics, he proposed a radically democratic republic in which an absolute sovereignty was the central safeguard against infractions on liberty and tolerance. Spinoza's synthesis met with heavy criticism as his political state derived from a complete separation of theology as a system of obedience and philosophy as a system of truth. Though not all of these radicals succeeded in formulating a new system of republican liberty, they all sought the fortification of Dutch republican liberty.<sup>49</sup>

The Cartesian debates on the exegesis of the scriptures are generally interpreted as another chapter in the long history of scepticism

<sup>48</sup> Hans W. Blom, *Morality and Causality in Politics. The Rise of Naturalism in Dutch Seventeenth-Century Political Thought* (Utrecht, 1995).

<sup>49</sup> Blom, *Morality and Causality in Politics*; E.H. Kossmann, *Politieke theorie in het zeventiende-eeuwse Nederland* (Amsterdam, 1960); E.O.G. Haitzma Mulier, *The Myth of Venice and Dutch Republican Thought in the Seventeenth Century* (Assen, 1980), 170–208.

that ended with the eighteenth-century deist religions or even full-blown atheism. In such a context Dutch popular Cartesianism can be viewed as a huge threat to the subtle compromise that orthodox theologians and Cartesian philosophers had reached in the preceding decades. When the radical Cartesians began to undermine the very basis of this compromise, orthodox Calvinists were quick to exploit the fears of a steady growth of atheism, even if only invoking the idea of atheism as a polemical instrument. The radicals themselves abhorred the term, as can be illustrated for instance by Spinoza's complaint in one of his letters to Henri Oldenburg, the permanent secretary of the Royal Society, in which he writes that he plans to write a new treatise (the *Tractatus theologico-politicus*) to refute the popular charge of atheism.<sup>50</sup>

The general dislike of atheism points to another explanation of the debates on the interpretation of the scriptures that better fits the singular religious and political structure of the Republic. What united moderate Calvinists, religious radicals, and Spinozists, in my view, is their earnest endeavour to find a new basis for Christian concord. The Reformation had definitively destroyed the unity of medieval Christendom, but most European states had succeeded in imposing new forms of religious conformity. Only in the Republic did religious strife continue to rage. As a result, from the late sixteenth century on, Dutch humanist scholars had been trying to end religious quarrels by invoking science and scholarship in order to create a new religious understanding capable of superseding dogmatic differences. This movement, to which Leiden professors such as Joseph Scaliger and Justus Lipsius adhered, also attracted laymen who founded loose associations such as the *Family of Love* that had similar objectives. In the early seventeenth century the Familists dispersed but their ideology was passed on to the Arminians and to all those who tried to postpone their decision to choose religious sides as long as possible.<sup>51</sup> The intellectual debates on religion and the interpretation of the scriptures inspired by Cartesianism, should be seen as a renewed attempt to achieve an intellectual basis for religious unity or to devise new intellectual stratagems that would put

<sup>50</sup> Spinoza to Oldenburg (September or October 1665), in: A. Rupert Hall and Marie Boas Hall (eds.) *The Correspondence of Henri Oldenburg*, 13 vols. (Madison-London, 1965–1986), II, 542.

<sup>51</sup> J.A. van Dorsten, *The Radical Arts. First Decade of an Elizabethan Renaissance* (Leiden, 1970) and 'Tempora filia veritas. Wetenschap en religievrede', in: *Tijdschrift voor Geschiedenis* 89 (1976), 413–419; Alastair Hamilton, *The Family of Love* (Cambridge, 1981).



an end to the permanent state of religious conflict. These ideas once again had a social basis in the many *Chrétien sans Église*, who could be found in the Republic, and who convened in small groups such as the Collegiants or were led by irenical Mennonites such as Galenus Abrahamsz (1622–1706) or more critical seekers like Johannes Bredenburg (1643–1691).<sup>52</sup>

As a consequence, radicals like Lodewijk Meyer should not simply be interpreted as erudite libertines of the Dutch tradition who sought to propagate atheism and the *libertas philosophandi*. Meyer was not a Grub Street writer but a solid Amsterdam citizen and a central figure among those Dutch Cartesian intellectuals who strove for rational religious truths that would put an end to all discord in Protestant Christendom. In the opening chapters of his *Philosophia Sacrae Scripturae Interpres*, clandestinely published in Eleutheropolis (=Amsterdam) in 1666 (a Dutch translation appeared one year later), Meyer argues that the present version of the Scriptures is so full of contradictions and discrepancies that it would be a disgrace to God to attribute its authorship to Him. As a result, he argued, theology is in complete disarray. However, once Meyer's rational model of Bible interpretation was generally adopted, theological conflicts with their disastrous social and political consequences would come to an end.<sup>53</sup> Meyer was not the only one to entertain such hopes. Many contemporaries saw it as God's will that Christians should now reach agreement among themselves on a firm and unquestionable method for the exegesis of the Bible.<sup>54</sup> For some like the Scottish theologian John Durie who had many Dutch connections, such an interpretational unity was even a necessary precondition for the second coming of Christ.<sup>55</sup>

If we stress the quest for religious concord as a unifying element in the Dutch Cartesian debates, the intellectual efforts of major fig-

<sup>52</sup> Leszek Kolakowski, *Chrétien sans Église. La conscience religieuse et le lien confessionnel au XVII<sup>e</sup> siècle* (Paris, 1969); for some recent analyses: Wiep van Bunge, *Johannes Bredenburg (1643–1691). Een Rotterdamse collegiant in de ban van Spinoza* (Rotterdam, 1990); Andrew C. Fix, *Prophecy and Reason. The Dutch Collegiants in the Early Enlightenment* (Princeton, 1991); Michiel Wielema, *Ketters en Verlichters. De invloed van het spinozisme en wolffianisme op de Verlichting in gereformeerd Nederland* (Amsterdam, 1999).

<sup>53</sup> Lodewijk Meyer, *Philosophia Sacrae Scripturae Interpres* (Eleutheropolis [=Amsterdam], 1666), Preface. Cf. Wim Klever, *Mannen rond Spinoza. Portret van een emanciperende generatie, 1650–1700* (Hilversum, 1997), 61–86.

<sup>54</sup> Cf. Van Bunge, *From Stevin to Spinoza*, for a similar perspective.

<sup>55</sup> Ernestine van der Wall, 'Orthodoxy and Scepticism in the Early Enlightenment', in: Richard H. Popkin and Arjo Vanderjagt (eds.) *Scepticism and Irreligion in the Seventeenth and Eighteenth Centuries* (Leiden, 1993), 212–241.

ures such as Balthasar Bekker also acquire a new meaning. Bekker did not explicitly plan to liberate the world from belief in witchcraft, nor was it his main ambition to free the world from superstition. Bekker experienced a lifelong struggle with religious authority. Part of the persistent nature of the struggle should be explained—as modern research has stressed—by reference to Bekker's personal character.<sup>56</sup> His polemics were dogged, and he was never prepared to accept compromise. However, central in his published writings, from the *Kort Bericht* ('Short Notice') of 1666 in which he claimed the right to preach at his wife's grave, to his *Friesche Godgeleerdheid* ('Frisian Theology') of 1693, is his crusade for exegetic liberty within the framework of the established Calvinist church. Bekker made free use of the accommodation theory so popular with his Cartesian colleagues.<sup>57</sup> He nevertheless differed from them in one fundamental aspect. He never questioned the meaning of the original Bible text but only the Dutch translation of it.<sup>58</sup> Where Spinoza, for instance, ridiculed Bible passages and claimed that the authors of the Bible had made flagrant mistakes, Bekker never accepted the proposition that the Christ of the Bible was capable of erring. Bekker's reluctance to be associated with the radicals cannot simply be explained by reference to his fear of the authorities. On the contrary, Bekker seemed almost always to be on the lookout for new opportunities to clash with authority.

It was Bekker's aim to broaden fundamentally the religious basis of the established Calvinist church. By introducing a new, more moderate and inclusive method of Biblical exegesis he hoped to realize the aim of so many moderate Calvinists, regents as well as citizens, from the early seventeenth century on: the establishment of a liberal Calvinist church that would be capable of encompassing the large majority of Dutchmen. He thus hoped to achieve conformity by means of intellectual persuasion rather than by force and violence. In this context his refusal to be expelled from the church or to leave it on his own initiative for the Remonstrant Society as so many Calvinist ministers before him had done, finds its logical place. The readiness of the Amsterdam magistrates to accept Bekker as a

<sup>56</sup> Van Sluijs, *Bekkeriana*, 19–23.

<sup>57</sup> Andrew Fix, 'Bekker and Spinoza', in: Van Bunge and Klever (eds.) *Disguised and Overt Spinozism*, 23–40. Cf. Andrew C. Fix, *Fallen Angels. Balthasar Bekker, Spirit Belief, and Confessionalism in the Seventeenth-Century Dutch Republic* (Dordrecht, 1999).

<sup>58</sup> Wiep van Bunge, 'Balthasar Bekker's Cartesian Hermeneutics and the Challenge of Spinozism', in: *The British Journal for the History of Philosophy* 1 (1993), 55–79.

*predikant* in spite of his turbulent career and his many conflicts with church authorities, as well as their refusal to condone his expulsion from the church and their willingness to continue to pay his salary until his death, while leaving his post as minister vacant, should not be interpreted as another instance of inexplicable Dutch tolerance. As Bekker was one of the last great propagandists of the tolerant and broad middle church that so many *politique* regents had been advocating since the 1590s, they saw him as a precious asset that should not be easily expended.

From the 1670s onwards, the radical Cartesians lost the initiative and began to meet with severe resistance. Some of their books were banned, their livelihoods were often in peril and some radicals, such as Adriaan Koerbagh, even ended their lives in prison. The moderate Calvinists of various persuasions took over. Some were honest Cartesians. Others were followers of Johannes Cocceius (1603–1669), a very influential Leiden theology professor, who had won a large intellectual following composed of ministers and laymen alike, by contending that parts of Scripture should not be construed literally but interpreted figuratively and in terms of their historical context.<sup>59</sup> All were equally intent on finding a solution for the ongoing religious battles. A crucial role in the framing of a new consensus in the field of theology and philosophy should be attributed to Herman Alexander Röell (1635–1718), professor of philosophy at Franeker University in Friesland, and Salomo van Til (1644–1713), professor of theology at Leiden University.<sup>60</sup> Röell and Van Til defended the divinity of Christ and argued against radicals of whatever persuasion. They exploited Cartesianism to the full and went further than any previous Cocceian theologian. They forged a theology linked to reason and produced a synthesis of the new philosophy and the Calvinist tradition, portraying Christianity as the most reasonable of all religions.

As we have seen, Van Velthuysen and the De la Court brothers did not concern themselves with a full explanation of the constitution of the Dutch Republic itself, while Spinoza's ideas mainly met severe resistance. The compromise in political theory was authored by the Frisian law professor Ulric Huber (1636–1694). Huber, a moderate Cartesian himself, succeeded in forging a political theory of republicanism which avoided the extremes of Hobbes and

<sup>59</sup> F.G.M. Broeyer and E.G.E. van der Wall (eds.) *Een richtingenstrijd in de Gereformeerde kerk. Voetianen en cocceianen, 1650–1750* (Zoetermeer, 1994).

<sup>60</sup> Jacob van Sluis, *Herman Alexander Röell* (Leeuwarden, 1988).

Spinoza, thus supplying the Cocceio-Cartesian compromise with a political basis. Huber tried to steer a clear way between on the one hand the Calvinist constitutionalist tradition represented by the early seventeenth-century political philosopher Johannes Althusius (1556–1638), whose defence of absolute popular sovereignty in Huber's view would lead to chaos, and Hobbes' theories on the other, whose arbitrary sovereignty of some indifferent ruler would lead to slavery. Huber's ideal state consisted of a very broad constitutional aristocracy, with absolute sovereignty residing in as large a body of patricians as possible and with important civil rights explicitly reserved for the people. In his view the Dutch Republic came closest to that ideal.<sup>61</sup>

It is tempting to interpret the success of the moderates' compromise in the context of the fundamental changes in Dutch politics after 1672.<sup>62</sup> When the liberal regents of the party of the True Freedom under the lead of Grand Pensionary De Witt lost their power to the stadholder, the Voetians managed to control the situation once again. Though plausible, such an interpretation would identify the radicals as a unified group, almost as a party, that was forced into submission. Radical Cartesianism was hardly silenced after 1672. Though many radicals went through difficult times—Spinoza himself who in the new climate refrained from publishing his works is a perfect example—the skirmishes went on until the 1720s at least.

Much more important, however, in my view, is the intellectual and political appeal of the compromise that supplied a basis for the unity that so many participants in the public debates had been looking for. Moreover, since 1672 unity had been in great demand. In that year the Republic engaged in the most prolonged and bitter international struggle since its birth in the 1580s: it was the start of the forty years' crusade against the *monarchie universelle* of Louis XIV. This struggle would absorb much of the Republic's intellectual and political energy and would even bring it to the brink of financial disaster in the early 1700s.

It would seem that Dutch commentators were quite satisfied with the results of the intellectual compromise forged by the moderates. It is remarkable, for instance, that the Dutch debates on sovereignty, after Huber's intervention, came to an end. Though the issue of sovereignty was never officially resolved, after 1672 the supremacy of

<sup>61</sup> Kossmann, *Politieke theorie*; T.J. Veen, *Recht en Nut. Studiën over en naar aanleiding van Ulrik Huber (1636–1694)* (Zwolle, 1976).

<sup>62</sup> Israel, *The Dutch Republic*.

the provincial estates was informally recognized and no stadholder, not even William III, would aspire to monarchical status again. From the 1670s on, all stadholders were content to enhance their political power within the federal republican system. Moreover, Dutch intellectuals were now also prepared to praise their country's political and religious system, as can be shown from the *Boekzaal van Europe* (1692–1702), the first Dutch journal in the vernacular and intended for a general public unable to read Latin. Its founder was Pieter Rabus (1660–1702), a Rotterdam Latin schoolteacher of Arminian origins.<sup>63</sup> The journal may be characterized as a mirror of the moderates' compromise: Newtonian as well as Cartesian, averse to all radicalism in religious and political matters, and adhering to the republican ideology as advocated by Huber. Rabus' heroes were Dutch Cartesians such as Bekker, whose moderate crusade for exegetical liberty he heartily endorsed. He also praised the Dutch republican system: in the Republic all citizens enjoyed protection under the law, and the enforcement of criminal justice was of a comparatively lenient nature. Rabus and his fellow journalists were also proud of the actual Dutch Republican constitutional practices. They judged that its many built-in checks and balances ensured that absolute power or arbitrariness was never tolerated in the long term. In their view, government policies in the Republic were aimed at the welfare of the country as a whole, while in adjoining absolutist states the interests of citizens were subordinated to the dynastic ambitions of monarchs.

The new compromise between philosophy and religion also held firm. The Voetian cause still found enthusiastic defenders, but the debates had lost their overriding urgency and in the early decades of the eighteenth century they came to an end. The compromise served as a solid base for the early Dutch Enlightenment and its influence proved to be lasting. As these enlightened literati also succeeded in broadening the social basis of their movement, the compromise became a central element in Dutch eighteenth-century intellectual life.<sup>64</sup>

<sup>63</sup> J.J.V.M. de Vet, *Pieter Rabus (1660–1702). Een wegbereider van de Noordnederlandse Verlichting* (Amsterdam, 1980).

<sup>64</sup> Mijnhardt, 'The Dutch Enlightenment', in: Jacob and Mijnhardt (eds.) *The Dutch Republic in the Eighteenth Century*, 197–223.

### III. *The Isolation of Dutch Radicalism*

In European intellectual history the so-called Popkin-Schmitt thesis has met with almost overall approval in the last decades.<sup>65</sup> According to these historians, the seventeenth century plays the leading role in the great Western drama in which a growing body of intellectuals came to question, for the first time systematically, the traditional conceptual framework of thinking about God and religion. Even though these intellectuals sometimes employed fideist camouflage, in reality they were sceptics or even atheists in disguise. Thus, scepticism about God and religion is the key to an understanding of the intellectual debates of early modern Europe.

The interpretation offered above throws some doubts on the universality of that sceptical tradition. Other factors were at play as well. In the Dutch Republic, for instance, it was not doubt and scepticism that were central to the Cartesian and Spinozist debates, but unity and concord in religion as well as in politics. Dutch commentators were not looking to Descartes to be able to underline their doubts. Instead, they were prepared to use Cartesianism, even in fields the master himself would keep away from, in order to achieve certainty, unity and harmony. The Dutch, therefore, were engaged in a different Enlightenment project altogether. They were chiefly absorbed by the question of how their young Republic—which in a very short lapse of time had reached an amazing level of economic prosperity, international greatness and cultural prestige—could be saved from political discord and religious strife threatening its future.

It would seem that in the last decades of the seventeenth century, a whole series of different Enlightenment projects were well under way, each of them adapted to different needs. While Dutch literati were trying to keep their vulnerable Republic afloat, French exiles (many on Dutch soil) were plotting and scheming to make possible a return to France while debating the nature of the ideal relationship between church and state and the necessities of constitutional reform. Refugees from England, equally finding a safe haven in the Dutch Republic, were discussing republican ideals and religious and political revolt. Exiles from a host of other states were mixing with these seditious groups and trying to make sense of the political and religious situation in their native countries and the

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<sup>65</sup> Richard H. Popkin, *The History of Scepticism from Erasmus to Spinoza* (Berkeley, 1979); *idem* and Charles B. Schmitt (eds.) *Scepticism from the Renaissance to the Enlightenment* (Wiesbaden, 1987).

reforms that would have to precede their eventual return.<sup>66</sup> The radical wings of each of these different Enlightenment projects found each other in a common quest for skeptical, pantheist and atheist horizons. It is within this intellectual vanguard that we should locate the Popkin-Schmitt tradition. Too often, however, our fascination for the shared philosophical efforts of these literati has made us neglect the usually fundamentally different practical political objectives of the various and frequently national Enlightenment projects these *philosophes* avant la lettre were also part of. Information on these groups, their plans, their ideas is still scant as research on them has only just begun. In particular we need to know much more about contacts between the representatives and members of the various nationally oriented Enlightenment projects, about their activities in bookshops, in printing ventures, in informal circles, libraries and secret societies. The Dutch Republic, as a matter of course, is the ideal place to start. Research on the subject, however, is extremely complicated. Unfortunately, the Dutch Republic was no police state, a fact that very much limits the number of available sources.

Most of all, we need to know much more about the indigenous Dutch Enlightenment tradition. Enlightened circles, radical as well as moderate, have recently been proven to be quite a common phenomenon in the urban setting of Holland and Zeeland.<sup>67</sup> As a result we can easily identify a radical Dutch tradition continuing well into the eighteenth century. That tradition includes diverse figures such as Isaac Vossius (1618–1689), the book collector, who believed everything apart from the Bible,<sup>68</sup> Hadrianus Beverlandus (1650–1716) who created a pan-eroticon in which all human behaviour was ultimately sexually motivated,<sup>69</sup> Johannes Duijkerius (1661/1662–1702), who wrote the first Spinozist novel,<sup>70</sup> the authors of the materialist pornographic novels produced in the Republic in the last

<sup>66</sup> Cf. for instance, Silvia Berti, 'Aggiunte alla biografia di Radicati', in: *Rivista Storica Italiana* 96 (1984), 510–522.

<sup>67</sup> Cf. Israel, *Radical Enlightenment*. Cf. also R.H. Vermij, 'Tolands Eerste Brief aan Serena. Een episode uit de geschiedenis van het deïsme in Nederland', in: *De Achttiende Eeuw* 21 (1989), 13–22.

<sup>68</sup> R. de Smet and W. Elias, 'Isaïc Vossius', in: *Woordenboek van Belgische en Nederlandse Vrijdenkers*, 2 vols. (Brussels, 1979–1982), II, 49–184, but see David Katz who doubts Vossius' atheism: David S. Katz, 'Isaac Vossius and the English Bible Critics', in: Popkin and Van der Jagt (eds.) *Scepticism and Irreligion*, 142–184.

<sup>69</sup> R. de Smet, *Hadrianus Beverlandus (1650–1716). Non unus e multis peccator. Studie over het leven en werk van Hadriaan Beverland* (Brussels, 1988).

<sup>70</sup> Johannes Duijkerius, *Het leven van Philopater & Vervolg van 't leven van Philopater*, ed. Gerardine Maréchal (Amsterdam, 1991); H.G. Hubbeling, 'Philopater, une

decades of the seventeenth century,<sup>71</sup> but equally the radical dissenting Calvinist believers in Holland who fought their battles with religious authority.<sup>72</sup> Though we also have to assess their importance for the European philosophical development, we should not neglect that their overriding concern was the settling of the local problems extensively discussed above.

My emphasis on the singularity of most of the Dutch Enlightenment project may help to explain why such a large part of the Dutch experience failed to make any decisive impact on the development of European, especially French thought in the period of the *European Crisis* and beyond. Up to now, the construction process of the French silence has received little scholarly attention. With a presentation of a rough outline, I will conclude my paper. It turns out that by the middle of the eighteenth century the irrelevance of the Dutch enlightened tradition had already been firmly established. Though Spinoza's importance for the development of radical religious philosophy was universally acknowledged, he had become completely dissociated from the Dutch debates that his ideas were also part of. To the French philosophes, the Dutch Republic would count foremost as a cheap printer's shop and not as a producer of interesting ideas. Indeed, they invented a series of well-known bon mots in which the Dutch were portrayed as avaricious peddlers and Calvinist bigots alike.

It would seem that from the 1660s on, the Dutch controversies on sovereignty, religious harmony and tolerance only very rarely reached a French or international audience. Part of the problem, of course, was that much material pertaining to the early Dutch Enlightenment had been published in the Dutch language or had been locked away in dusty academic volumes. After all, an outstanding characteristic of the Dutch Enlightenment was the close relationship between academic and public debate. In this context it is worth noting that in Scandinavia and Northern Germany where knowledge of the Dutch language (as a result of the extended commercial network) was widespread, the issues we now designate as the radical Dutch Enlightenment, have been much more extensively debated.

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interprétation matérialiste de Spinoza en Hollande du XVIIe siècle', in: *Revue de Métaphysique et de Morale* 99 (1988), 188–207.

<sup>71</sup> J.J. Klok et al. (eds.) *D'openhertige juffrouw of d'ontdekte geveinsdheid* (Leiden, 1998).

<sup>72</sup> Cf. Wielema, *Ketters en Verlichters*.



On the other hand, Pierre Bayle and many of the Huguenot émigrés who were to distribute a large part of international European Enlightenment thought, witnessed much of the debate. Although Bayle found it frustrating that he was not able to read Dutch very well, he did read Latin, and it was precisely through him and his fellow journalists on Dutch soil that the Dutch controversies were screened out from what French and English intellectuals regarded as contemporary issues. Bayle's *Dictionnaire historique et critique*, which did more than perhaps any other publication for setting the agenda of the early European Enlightenment, almost completely neglected the Dutch contribution. In vain one looks for entries on most of the Dutch figures discussed above. French intellectual audiences in the period of the great wars between France and the Republic were hardly receptive to the Dutch controversies and the moderate compromises they engendered. Holland after all was France's major enemy and the French abhorred the incomprehensible Dutch system of politics. Richard Simon, for instance, detested Dutch tolerance which he thought was inspired only by 'une raison d'intérêt et d'avarice'.<sup>73</sup> It would seem that this late seventeenth-century climate of opinion, created by war and fierce political and religious differences, greatly contributed to the exclusion of the early Dutch Enlightenment radicals from the international scene.

Decisive, however, and much more important than an international lack of receptivity or a supposed failure of the French journalists on Dutch soil to perform their duties, was the specific Dutch character of the debates. They were adapted to typically Dutch circumstances and developed in a context that was unique in Europe. From the late sixteenth to the late eighteenth century, the Dutch Republic was an anomaly in Europe politically, economically, socially as well as religiously. Dutch intellectual debates, triggered by the problems of that state, also followed their own distinctive course.

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<sup>73</sup> Cited by Israel, *The Dutch Republic*, 657.

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